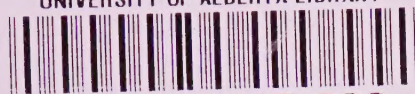


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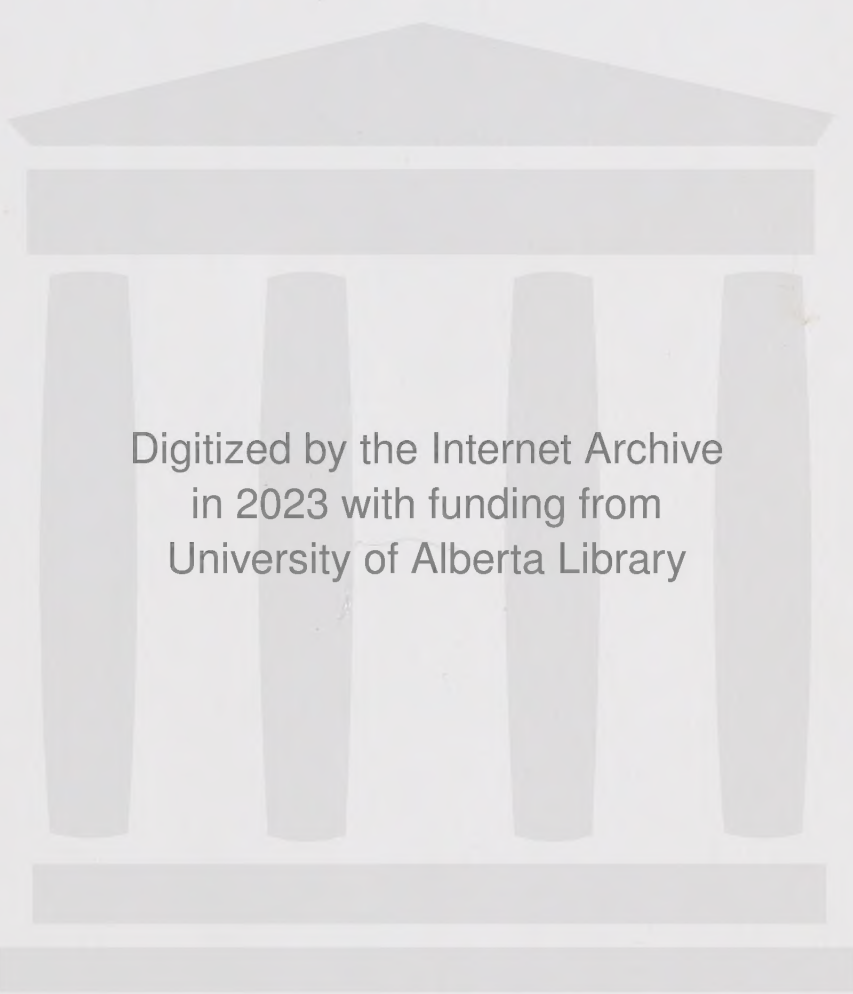
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To the Lieutenant Governor in Council

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to transmit through the Minister of Education the Report of the University of Alberta, setting forth the revenues and expenditures for the year ending March 31st, 1951, and the investments as they stood at the end of the fiscal year.

Appended to this report is the Report of the President of the University, in which the academic work of the University for the year, July 1st, 1950 to June 30th, 1951, is dealt with in detail.

C. M. MACLEOD, *Chairman*

A. STEWART, *President*

November 30th, 1951

829220

Financial Statements

UNIVERSITY OF ALBERTA BALANCE SHEET AS AT MARCH 31, 1951

STATEMENT A

ASSETS

FIXED:

Buildings and equipment in service:		
Land, buildings and plant, Schedule No. 1	\$9,657,386.51	
Furnishings and equipment, Schedule No. 2.....	2,002,242.59	
		\$11,659,629.10

LOAN RECEIVABLE:

Students' Union re Students' Union building, see contra		379,355.18
---	--	------------

CURRENT:

Cash on hand	\$	6,003.18	
Accounts receivable:			
Sundry debtors	\$119,704.41		
Less: Reserve for doubtful accounts	2,500.00		
	\$117,204.41		
Government of the Province of Al-			
berta re construction of buildings	559,911.57		
Due from trust account	15,376.08		
		692,492.06	
Accrued interest		908.33	
Merchandise held for resale, Schedule No. 4.....		91,421.63	
Government of Canada bonds, par value		10,000.00	
			803,825.20

PREPAID EXPENSES:

Supplies on hand, Schedule No. 4	\$	69,994.72	
Unexpired insurance		15,906.61	
Legal retainer fee		375.00	
			86,276.33

OTHER ASSETS:

Livestock inventory	\$	25,969.00	
Deposit, Workmen's Compensation Board		8,564.00	
Agreement for sale		4,925.00	
			39,458.00

TRUST:

Investments, par value:			
Government of Canada, direct and			
guaranteed	\$1,360,300.00		
Provincial, direct and guaranteed	394,500.00		
Preferred shares	500.00		
		\$1,755,300.00	
Cash on hand and in bank		159,327.29	
Loans receivable		89,185.07	
Agreement for sale		500.00	
Real estate, shares and sundry, nominal value		8.00	
			2,004,320.36
			<u>\$14,969,864.17</u>

CAPITAL AND SURPLUS:		LIABILITIES	
Capital provided by the Government of the Province of Alberta		\$10,002,489.24	
Capital surplus		1,760,078.54	
			\$11,762,567.78
LOAN PAYABLE:			
Government of the Province of Alberta re Students' Union building, see contra			379,355.18
CURRENT:			
Bank overdrafts	\$	353,163.80	
Accounts payable		184,546.22	
Imperial Bank of Canada loan		3,000.00	
Cafteria tickets outstanding		247.96	
			540,957.98
DEFERRED INCOME:			
Fees	\$	5,729.75	
Other		3,135.00	
			8,864.75
RESERVES:			
Unexpended library fees	\$	30,172.05	
Premium on Rockefeller endowment		18,221.66	
Freight elevator		16,275.00	
Extraordinary maintenance and repairs		16,000.00	
Unexpended University Athletic Board fees		15,396.22	
Workmen's Compensation Board		13,798.22	
Blood plasma unit		10,000.00	
Rink repairs		9,583.03	
Dining room repairs and replacements		1,622.61	
Plant science field laboratory		527.40	
Provincial Laboratory of Public Health, operating ...		24,405.38	
Operating, general		117,796.55	
			273,798.12
TRUST:			
General endowment Rockefeller Foundation	\$	500,000.00	
Scholarships:			
Escheated estates	\$410,405.63		
General	323,730.02		
		734,135.65	
Research		307,231.68	
Students grants and loans		120,614.55	
Pensions		89,411.89	
General educational purposes		65,974.70	
Sundry:			
Administered by the University	\$ 68,018.15		
Held on behalf of others	103,557.66		
		171,575.81	
Due to general account		15,376.08	
			2,004,320.36
			<u>\$14,969,864.17</u>

Edmonton, Alberta, July 31, 1951

I have audited the books and records of the University of Alberta for the year ended March 31, 1951.

Operating Results

Operations for the year under review resulted in a deficit of \$36,174.73 after providing \$2,855.71 from current revenue for expenditure on new buildings and equipment. Details of operations are shown on Statement B.

The deficit for the year was transferred to operating reserve. Transactions within that reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and Calgary has been provided by the Province direct.

Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Inventories of merchandise for resale and supplies on hand are certified as to quantities and prices by officials of the University.

Capital and surplus transactions during the year are summarized hereunder:

Capital provided by the Government of the Province of Alberta:

Balance as at April 1, 1950	\$8,468,992.19	
Add:		
Library construction	646,820.24	
Power plant expansion	247,676.34	
Provincial laboratory of Public Health	244,075.71	
Other buildings and improvements	132,993.23	
Equipment	258,931.53	
Implementation of guarantee	3,000.00	
		\$10,002,489.24

Capital surplus:

Balance as at April 1, 1950	\$1,566,069.66	
Add:		
Students' Union building transferred	163,441.06	
Buildings provided from reserve funds	19,772.20	
Equipment acquired from donated funds	2,000.00	
Income contributions:		
Library	21,049.23	
Buildings and equipment	2,855.71	
	\$1,775,187.86	
Deduct:		
Equipment sales and refund of duty	15,109.32	
		1,760,078.54
		<u>\$11,762,567.78</u>

Subject to the foregoing remarks, I certify that, in my opinion, the above Balance Sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1951, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, C.A.

Provincial Auditor

UNIVERSITY OF ALBERTA
STATEMENT OF REVENUE AND EXPENDITURE
FOR THE YEAR ENDED MARCH 31, 1951

REVENUE

Grants:			
Province of Alberta:			
General	\$1,400,000.00		
Debt charges, see contra	303,075.42		
	<hr/>	\$1,703,075.42	
Government of Canada:			
Department of Veterans' Affairs, supplementary grant re rehabilitation students	70,507.89		
	<hr/>		\$ 1,773,583.31
Fees:			
Tuition, Schedule No. 7	\$ 626,642.76		
Examination and special, net, Schedule No. 8.....	6,125.73		
	<hr/>		632,768.49
Interest on Rockefeller Foundation endowment	\$ 15,416.66		
Deduct: Transferred to medical research trust	5,000.00		
	<hr/>		10,416.66
Library fees, see contra			20,202.27
University Athletic Board fees, see contra			15,575.92
Operating departments net revenue, Schedule No. 20 ...			37,035.86
			<hr/>
			\$ 2,489,582.51

EXPENDITURE

Instructional expense:			
Instructional salaries and direct expenses, net,			
Schedule No. 9	\$1,616,394.85		
Maintenance of buildings, Schedule No. 10	258,840.73		
Administrative salaries and expenses, Schedule			
No. 11	94,279.41		
Library salaries and expenses, Schedule No. 12 ...	76,778.35		
Upkeep of grounds, Schedule No. 13	32,843.40		
Provision for library accessions, see contra	20,202.27		
Provision for University Athletic Board expenses,			
see contra	15,575.92		
Calendar, scientific and other publications, Sche-			
dule No. 14	11,585.34		
Alumni office, Schedule No. 15	7,031.64		
Student guidance office, Schedule No. 16.....	5,312.02		
Provost's office, Schedule No. 17.....	5,311.69		
Travelling expenses, instructional staff	3,445.67		
Pension arrears, Schedule No. 18	3,048.24		
Exchange	93.04		
	<hr/>		\$ 2,150,742.57
Public service departments net expenditure, Schedule			
No. 19		69,083.54	
Debt charges, see contra		303,075.42	
Building and equipment purchased from income,			
Schedule No. 6		2,855.71	
		<hr/>	\$ 2,525,757.24
Deficit for the year ended March 31, 1951, transferred			
to operating reserve			\$ 36,174.73
			<hr/>

STATEMENT C

UNIVERSITY OF ALBERTA

STATEMENT OF OPERATING RESERVE

FOR THE YEAR ENDED MARCH 31, 1951

Balance as at April 1, 1950		\$ 170,770.77
Add:		
Adjustments in respect of previous years:		
Rental and sale of equipment	\$ 14,351.08	
Refund of duty	2,646.96	
Sale of steam	2,218.48	
Miscellaneous	75.86	
		<u>19,292.38</u>
		\$ 190,063.15
Deduct:		
Deficit for the year ended March 31, 1951.....	\$ 36,174.73	
Provision for freight elevator	16,275.00	
Transfer to Provincial Laboratory of Public Health operating reserve, being the excess of revenue over expenditure	11,437.32	
Expenditure on new faculty garages	6,879.55	
Subsidy to Studio Theatre	1,500.00	
		<u>72,266.60</u>
Balance as at March 31, 1951.....		<u><u>\$ 117,796.55</u></u>

*To the Governors of the
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1951.

A. STEWART
President

The Report of the President

As presented to Convocation, October 28, 1950.

The annual report of the President is made to the May Convocation. My report at this time refers to intersession activities.

Since the Convocation in May there have been two changes in the administration of the University. After ten years of generous service to the University of Alberta, Mr. Justice H. H. Parlee retired from the office of Chairman of the Board of Governors on May 18; and was succeeded by Mr. C. M. Macleod, K.C. The University is indebted to Mr. Parlee and we may be assured of his continuing interest. We welcome Mr. Macleod and hope that he may find in his duties a satisfying opportunity for service to education in this Province.

Dr. Robert Newton retired from the position of President on August 31, after piloting the University through the rough seas of the war and post-war years. We are happy that Dr. Newton has accepted the position of Director of the Research Council of Alberta, and are confident that the mutually advantageous relations between the University and the Research Council will thereby be strengthened.

The Director of the 1950 Summer Session reported a peak attendance of 1,701 students, including 36 students in courses offered in Calgary. Fifty-three members of the University staff were engaged in instruction at the Summer Session. Of the visiting instructors, four were secured from the United States. Seventy-five courses and fifteen half-courses were offered. Having completed the three-year term, Dr. G. M. Dunlop has retired as Director of the Summer Session and has been succeeded by Dr. J. W. Gillies. I am pleased to pay tribute to Dr. Dunlop's able administration.

The fine chalets provided by the Col. J. H. Woods Memorial gift and the acquisition of Holiday House under lease contributed to another successful year for the Banff School of Fine Arts. During the period June 25 to August 19, 494 students attended classes in Drama, Music, Painting, Applied Art, Creative Writing, and Oral French. I had the opportunity to inspect the School during the concluding week. The enthusiasm of the students, and the high quality of the work displayed, were evidence of skilled instruction and of effective organization by the Director, Mr. Donald Cameron.

In addition to participating in the Summer Session and the Banff School of Fine Arts, members of the staff have engaged in a variety of activities, all of which contribute to the effective functioning of the University.

A substantial number have pursued graduate studies at Universities from Columbia, New York, to Stanford, California. The collective contact so obtained is invigorating to the life of the University of Alberta. Other stimulating associations result from attendance at meetings of professional and technical organizations. During the past summer three members of our staff were in Europe to attend international conferences, and many others represented this University at meetings in other parts of Canada and in the United States.

A number of Departments have sponsored Refresher Courses, as in Dentistry

and Pharmacy, or in conjunction with the Extension Department have participated in Short Courses, for example, the Frozen Food Locker Plant Short Course of the Department of Dairying, and the several "schools"—"Mud", "Oil Testing", "Gas Metering", "Management" and "Supervisory Training"—of the Department of Chemical Engineering.

In the literary Departments there has been the opportunity for writing and the preparation of manuscripts for publication.

The Departments of Geology, Soils, Botany, Zoology, and Entomology have taken part in field studies covering Pleistocene geology, barren lands, irrigation lands, strip coal mining areas, aerobiological surveys, ecological investigations in Northern Alberta, tapeworm infestation of whitefish, and biting flies.

Members of the Departments of Physics, Chemistry, and Pharmacy assisted in projects of the National Research Council, in Ottawa; the Radioactivity Laboratory, Department of Lands and Mines, in Ottawa; and the Office of Naval Research, United States Government, in California. Utilizing the facilities here, and directing the work of a large number of research assistants, other scientific Departments have been active with research projects too numerous to mention.

The staff of the Faculty of Agriculture have continued to serve the farm people through extension lectures, field days, and technical research. The Faculty of Agriculture, the University and this Province suffered a severe loss in the death of Dean R. D. Sinclair, who was beloved and esteemed by all who knew him.

The number of full-time students registered in the 1950-51 session is 3,598. This compares with 4,136 in 1949-50. Some decline in registration was expected, as the result of the graduation of large classes, including many veterans, in May, 1950. However, the decrease is larger than anticipated, there being 132 fewer new students in the first year. This points up a condition which has received the attention of our Senate. The number of students completing the requirements for general matriculation in the 1950 Grade Twelve examinations was 937. Registration of new students in first year was 1,005. It is a matter of concern that apparently not enough students are completing high school, and that too few high school students are coming forward to the University to meet the needs for University graduates in this Province.

The Report of the President

As presented to Convocation May 16, 1951

In presenting the Report of the President on the two days of Convocation, I propose, on this first day, to report on the activities of the University. Tomorrow, I shall deal with some aspects of the financial position of the University in 1950-51, and in prospect.

Registration of students in the winter session reached a peak of 4,865 in 1947-48. The corresponding enrolment in 1950-51 was 3,730. A decline to about 3,330 is expected to occur in 1951-52. The continual decrease in numbers reflects, in the main, the graduation of student veterans. This year 481 student veterans were registered at the University of Alberta; some 200 may be in attendance next year. Future enrolments at the University will depend upon the flow of students from the high schools of the Province.

During the year, General Faculty Council received and approved the report of the Joint Committee, of the Department of Education and General Faculty Council,

on Articulation. Subsequently new matriculation requirements, covering admission to all faculties, were announced effective 1952-53. A reduction in required subjects, from seven to six, offers greater flexibility in the choice of subjects in the high school, and, it is hoped, will enable more students to meet matriculation requirements, possibly after one year in Grade 12. An increase in the required Grade 12 average, from 50 to 60, will eliminate some prospective students. However, experience has shown that the results of the Grade 12 examinations are still the best test of competence to meet the University's requirements, and that students admitted with an average of less than 60 in their Grade 12 subjects are, with few exceptions, unable to meet the normal standards for promotion through their University course.

The Provost, Prof. H. T. Sparby, states in his report to General Faculty Council: "Student government at the University of Alberta has been well sustained this year. Not only have student activities been capably managed, but relationships between student officers and the University Administration have been cordial and cooperative. This happy state of affairs was due in no small measure to the very able leadership provided by Mr. Michael O'Byrne, President of the Students' Union. . . . This has been the first year of operation of the new Students' Union Building. The House Committee which was set up to administer and supervise the building has discharged its responsibilities ably and well. . . . All the facilities provided by the building, offices, conference rooms, lounges and the games room, have served a wide range of student social and business needs throughout the year, and there are indications that the building will be put to even greater use in the succeeding years."

In acknowledging the satisfactory state of student affairs, I must mention, the Provost, the Dean of Women, a position to which Miss Maimie Simpson was recently appointed, and the Director of Student Advisory Services. The latter position, to which Dr. A. J. Cook was appointed during the year, is already proving an important factor in assisting students to adjust themselves to the University situation. Through the counselling services of the Director students are being helped in their personal and academic problems.

With decreasing registrations, the ratio of students to staff, which became excessive in the years of peak enrolments, has returned to its pre-war level. Some classes, for example English 2 with a registration of 570, are still too large for effective instruction, and the increase in number of graduate students bears heavily on some departments. The Department of Geology, for example, finds that, to meet the qualifications required in employment, students are returning to obtain their Master's degree. Evidence of maturity of the University, and of the reputation of the staff, is to be found in applications to the School of Graduate Studies for admission to a program leading to the degree of Doctor of Philosophy. Three applications have been accepted—two in the Department of Biochemistry and one in the Department of Plant Science.

During the year, the University has lost three of its valued teachers by death. These include Dr. T. H. Field, Honorary Instructor in Clinical Medicine, and Dr. W. N. Gourlay, Instructor in Clinical Surgery. At the October Convocation, I expressed the University's deep sense of loss through the death of Dean Sinclair. His successor, Dr. A. G. McCalla, whose appointment was recently announced, has been a member of the Department of Plant Science since 1940. The University will be well served by him.

Two members of the staff, Dr. J. J. Ower, Professor of Pathology, and Dr. R. J. Lang, Professor of Physics, have reached the age of retirement after long periods of faithful service for which the University is grateful; and Mr. L. Y. Cairns, who for over 20 years has taught Practice to Law students in the early morning, and for many years has taught Commercial Law to Commerce students in the late evening, has at last convinced us that he will not turn up in his accustomed places next year. Mr. Cairns was a devoted teacher and, in Dean Bowker's words, "His influence on many students extends far beyond the subject matter of his courses".

It cannot be repeated too often that the real work of the University is done in the class room and laboratory. It is the diligent, often discouraging, and never-spectacular efforts of the instructor which count. I am happy to report that the University of Alberta is well served in the Departments, and wish to record my thanks to the teaching staff for their faithful service and generous co-operation in the past year.

Research in a university serves a number of important purposes. The opportunity for research is a condition necessary to attract and retain staff with a live interest in their field of study. Research carried on in the Departments is a means of introducing senior and graduate students to the techniques for the pursuit of new knowledge. Research produces new knowledge and adds to human welfare. The University which ceases to apply part of its energies to research is already dead. I am happy to report ample evidence of life and vitality at the University of Alberta. We are grateful for improved facilities for research. In some areas of knowledge the library is the research laboratory. The new Rutherford Library, with its splendid facilities, will not only provide an adequate workshop for the students, but will also offer conditions for library research which are welcomed by many of the staff. A similarly encouraging and stimulating development is the gift from the Alberta Cancer Society to be used in constructing and equipping a Cancer Research Laboratory. This building, when available, will be used to carry on and expand important research supported by the National Research Council, the Defence Research Board, and the Cancer Institute of Canada. The opening of the new building to house the Provincial Laboratory of Public Health has not only provided the kind of facilities this institution has needed for years, but has released space urgently required by the Departments of Bacteriology and Pathology in the Medical Building.

I can do no more than illustrate the achievements of the staff in the broad field of scholarship and research during the present year. The Departments report no less than 135 bulletins, papers and articles published during the year. Dr. Scargill, Department of English, has followed his translation of "Three Icelandic Sagas", done in collaboration with Margaret Schlauch and published by the Princeton University Press, by a book on "The Development of the Principal Sounds of Indo-European," published by the University of Toronto Press, and Dean Macdonald has found time to prepare a manuscript on "Education for Civilized Living," which has been accepted by the University of Chicago Press for publication and will appear within the next year.

Research conducted under the direction of the Departments, with the aid of graduate students, can be illustrated by the Department of Chemical Engineering. This Department has, along with other projects, been engaged on the following studies: The Catalytic Oxidation of Redwater Asphalt Base Stock, with the assistance

of a Shell Oil Fellowship; The Construction of an Electrical Model of a Petroleum Reservoir, with an Imperial Oil Fellowship; and Crude Oil Rheology and Pipeline Flow Problems, with an Interprovincial Pipeline Fellowship.

Research in the Faculty of Agriculture continues to be directed toward the solution of specific problems confronting the industry as well as to enquiries of a fundamental scientific nature. Valuable experiments have been conducted in the use of antibiotics in livestock feeding supplements, and in plant disease control. Experiments with radioactive sulphur have yielded important information on the use of this chemical by legume and grain crops. The basic physiological effects of 2,4-D and other hormones, for use in weed control, have been studied and results published. Important progress has been made in the field of cytogenetics. You will be interested to know that the Canadian Broadcasting Corporation is arranging to prepare, during the summer months, a documentary broadcast dealing with the research work of the Department of Plant Science.

The University is maintained to serve the people of this Province. In addition to teaching and research it has an important function in the field of Extension. Here too the record of the year reflects increasingly effective service. While work in this field is, in the main, directed by the Department of Extension, I must remind you that much of the effort of this Department would be impossible without the contribution of those attached to the instructional Departments.

The number of short courses, classes and conferences arranged and organized by the University reached a total of 86, compared with 54 in 1948-49. New courses offered this year include: a ten-week course in Personal Testing Methods sponsored by the Edmonton Personnel Association and the Department of Psychology; a course in Rural Leadership sponsored by the farm organizations; courses entitled "Improving Nursing Care" held in Edmonton, Calgary, and Lethbridge; and a specialized course in Nursing Service Personnel for nurses from Edmonton and district. Sixty-four purchasing agents attended a series of lectures on the problems of bulk buying. The Third Mud School for men in the oil-drilling industry was followed by a two-week Oil-Treating School and a Gas-Testing School for other specialized workers in the industry. A Management Institute for oil executives was held in Calgary. Ten Provincial Government Game Wardens attended an intensive three-day course in Fishery Management under the direction of the Department of Zoology.

A particularly important innovation of the year was the series of evening classes offered at the University. Ten courses were attended by 750 persons. The results were such as to justify an extension of the program next year; and General Faculty Council has set up a Committee to consider the possibility of instituting late afternoon or evening classes for University credit toward certain degrees.

The Banff School of Fine Arts and the Department of Fine Arts continue to make an outstanding contribution to the promotion of the Arts throughout the Province. The Banff School and its Director, Mr. Donald Cameron, received a well-deserved tribute when the School was awarded the Henry Marshall Tory Trophy for outstanding service to the Canadian community in the field of adult education. Through the Banff School, and with the support of the appropriate national organizations, the University is now offering national awards for outstanding contributions in Letters, Music, Painting and Related Arts. Announcement of the names of those receiving these awards for 1951 may be expected soon.

The Community Art Classes, conducted by members of the Art Division of the Department of Fine Arts, attracted 500 students to classes at 27 points in the Province. The Music Division of the same Department directed the affairs of the Western Board of Music; the Mixed Chorus made another successful tour of the Province. In its first year the Studio Theatre, directed by the Drama Division, staged five productions, each running for ten nights. The high quality of the performances and the public support have amply justified this project. Difficulties of time and movement prevented the plays being staged in other parts of the Province, although the last production—"Macbeth"—played in Red Deer for two nights.

In summing up, I can report with confidence that your University, in fulfilling its functions in this Province, continues to maintain those standards which have already won it the respect of the citizens of Alberta as well as of other institutions of higher education throughout Canada and in the rest of the world.

The Report of the President

As Presented to Convocation, May 17, 1951

Yesterday I referred to various features of the life and work of the University of Alberta during the year 1950-51. This afternoon I shall report on some aspects of the financial position of the University.

In common with the other universities of the country, the position of the University is affected by two factors: first, the decline in revenue from fees and from the supplementary grant of the Department of Veterans Affairs; and, second, the continuous pressure on costs resulting from the general inflationary tendencies. It is possible today to refer only to the first of these factors.

In 1947-48, when registrations during the winter session reached the peak figure of 4,865, the University received a total of \$688,552 in tuition fees, or an average of \$140 per student. The fees of student veterans were paid by the Department of Veterans Affairs, and in addition this department of the Federal Government paid to the University a supplementary grant of \$150 per student veteran toward the additional costs which the influx of student veterans would necessarily occasion. The total supplementary grant, 1947-48, amounted to \$334,589. From this source and from tuition fees the University received \$1,023,141.

In 1950-51, when only 481 student veterans were in attendance, and total registrations had dropped to 3,730, the supplementary grant from the Department of Veterans Affairs was \$70,500, and \$601,000 was received from tuition fees—an average of \$161.13 per student. The total revenue from these sources was \$671,500, or \$351,641 less than in 1947-48.

Proceeding into 1951-52, the University faced a further estimated decrease in registrations to 3,330, which, at the fees prevailing in 1950-51, would have meant a further substantial decline in revenues; and, in addition, the University was confronted with the cessation of the supplementary grant.

Another source of revenue is found in the operating departments, which include the bookstore, cafeterias, and residences with their dining halls. The University has never sought any substantial net revenue from these services provided for the students. In early years it was possible to operate the service departments, keeping prices reasonable to the student, and to record a small profit. In 1938-39, the cost

of room and board in the residences was \$30 per month. After the war when the residences were returned to the University, rates were set at \$40. Successive increases brought the charge, for a double room, to \$52 in 1950-51. The increase in rates between 1938-39 and 1950-51, using the double room, was 73 per cent. Since the war, the residences have consistently shown a deficit on operations. The deficit in 1950-51 was in the order of \$18,000.

Still another source of revenue is from endowments. In the case of the privately-supported universities this is a major source of income. In 1938-39, the University of Alberta received \$12,500 in revenue from this source, and exactly the same amount in 1950-51. It is true that the University receives substantial grants in aid of research from various sources, but these are provided only to meet additional out-of-pocket expenses associated with the specific research. They do not provide any net revenue to assist in meeting administrative and instructional costs.

The final source of revenue is the operating grant from the Province of Alberta. In 1947-48, the Provincial grant amounted to \$977,340. As University revenues from other sources diminished the grant was progressively increased to \$1,400,000 in 1950-51. In 1947-48, the grant represented 47.9 per cent of total revenue of the University; in 1950-51, 65.9 per cent. In 1947-48, the grant was equivalent to \$201 per student; in 1950-51, \$375 per student.

In these circumstances, faced with increasing costs, and despite an increase in the Provincial grant to \$1,700,000, for 1951-52 an increase in tuition fees could not be avoided. The University has therefore announced increases in tuition fees equivalent to an over-all increase of about 20 per cent. Depending on actual registrations next year, this increase in rates of fees may be expected to bring in the same revenue as in 1950-51. The University has also announced an increase in the rates for room and board in the residences. This increase is not in itself expected to be sufficient to clear the deficit and meet anticipated higher costs of food. It will be necessary to make some reductions in the services offered in the residences.

The circumstances I have described are common across the country. Practically all universities have announced increases in charges to students. The new fees at the University of Alberta are not high in comparison with fees in other Canadian universities. They are, indeed, lower than most. Nor can it be said that the charges to students have, in the post-war period, risen in proportion to the general rise in the prices of goods and services and in money incomes generally. It follows that many Alberta students are better able to meet the new charges than are many students in other provinces and than were many students in the pre-war years.

However, other considerations are important. Referring to the problem of fees in Canadian universities, Principal James of McGill has recently stated: "In point of fact, a young Canadian from a family in modest circumstances has less chance of getting a university education today than the youth of any other country with which I am familiar".

It is sound policy that university students who receive substantial benefits from the opportunity afforded them at a publicly supported institution should make a significant contribution toward the cost of their university education. Because of wide general benefits accruing to the community from citizens with a training which can be obtained only at the universities, it has never been and never will be sound policy to bar from the universities young men and women who have the ability and willingness to work, merely because of financial incapacity.

With the raising of the level of fees it is imperative that the universities seek additional scholarships, and endeavour to extend the loan-fund resources at their disposal. Today the number of scholarships available to students in Canada is less than in any other English-speaking country. A survey of 16 of the larger Canadian universities shows that in 1948-49 only 8 per cent of the students were receiving any form of scholarship. In Great Britain 41 per cent of all students attending university were in receipt of scholarships or bursaries in 1935-36. By 1948-49 this percentage had risen to 74 per cent, while in Oxford and Cambridge more than 80 per cent of the students were receiving financial assistance. In Australia 58 per cent were assisted in 1949, and in 1950 the present Commonwealth Government set up 3,000 additional scholarships covering tuition, and board and lodging.

At the present time the problem of the capable student, with limited financial resources on which he can draw, is to decide between immediate employment, often offering substantial income at the moment, and a period of loss of earnings and direct investment in a university education, which ultimately will more than compensate for his investment. However, the heavy burden of present investment is such that the short-range solution of the problem is adopted. He chooses immediate employment rather than further training. From this point of view there is a strong case for the extended application of the loan principle. The loan meets the immediate investment problem; it can be returned as the investments begins to pay dividends.

During the depression period the Dominion of Canada entered into an arrangement with the Provinces to provide assistance for technical training. Today the university has available to it limited Dominion-Provincial funds to be loaned to approved applicants. After the war, the Dominion of Canada embarked upon an educational rehabilitation program by which veterans received the opportunity of a university education. More than 50,000 veterans embarked on the program; more than 40,000 will graduate. The Dominion Government paid nearly \$33,000,000 to the universities to cover fees; it paid out more than \$90,000,000 in living allowances to student veterans; the supplementary grants to the universities aggregate more than \$18,000,000.

Neither of these programs of the Dominion of Canada was introduced merely to assist individuals or to compensate those assisted for services rendered to the country. They were introduced mainly to meet a national need and to advance the national interest. The veteran rehabilitation program, perhaps the finest experiment of its kind ever attempted, succeeded magnificently. Today, the national need is again urgent. The need is not solely for technical training; there is need too for a general elevation of the spirit and strengthening of the intellectual support of democracy. But there is an imperative need for technically trained personnel, if this country is to meet its obligations as a member of the community of free nations, in industrial expansion based on the resources of the country and in the creation of the means for adequate defence. Impoverished universities cannot meet this need. Depleted enrollments will leave the need unfilled. The problem is seen most clearly and felt most keenly by those closely concerned with university administration, but the problem is also one of national extent and of national concern. It can only be solved on a national scale by the Federal Government, but each individual in Canada who is able to help can derive immense personal satisfaction and make a significant contribution to the progress of our country by doing what he can to aid deserving students to begin a university career.

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements; resignations; student registration; gifts; new scholarships, prizes and medals; staff publications; and excerpts from the reports of administrative officers.

Table I.—Academic Staff Numbers

<i>Administrative Officers</i>			
President	1		
Assistant to the President	1		
Deans of Faculties	7		
Directors of Schools	5		
Director of the Calgary Branch	1		
Director of the Summer Session	1		
Provost	1		
Assistant Provost, Calgary Branch	1		
Director of Student Advisory Services	1		
Adviser to Women Students	1		
Librarian	1		
Superintendent of the University Hospital	1		
Registrar	1		
Assistant Registrar	1		
Bursar	1		
Accountant	1		
Purchasing Agent	1		
Wardens of Residence Halls	3		
Alumni Secretary	1		
	<hr/>	31	
<i>Full-time Teaching Staff</i>			
Professors	57		
Associate Professors	36		
Assistant Professors	69		
Lecturers	44		
Instructors	22		
	<hr/>	228	
On leave of absence:			
Professors	2		
Associate Professors	2		
Assistant Professors	3		
Lecturers	2		
<i>Part-time Teaching Staff</i>			
Professors	5		
Associate Professors	8		
Clinical Professors	10		
Assistant Professors	4		
Associate Clinical Professor	1		
Assistant Clinical Professor	1		
Lecturers	39		
Instructors	99		
Demonstrators in the Faculty of Education	172*		
Demonstrators and student assistants	140		
	<hr/>	479	
<i>School of Nursing</i>			
Director	1		
Superintendent of Nursing Service	1		
Supervisor of Instruction	1		
Adviser to Schools of Nursing and Lecturer	1		
Lecturer	1		
Demonstrator	1		
	<hr/>	6	

Department of Extension

Director	1	
Reference Librarian	1	
Chief Cataloguer	1	
Circulation Librarian	1	
Medical Librarian	1	
Order Librarian	1	
Education Librarian, Edmonton	1	
Education Librarian, Calgary	1	
Assistants	5	
	—	13
<i>Industrial Laboratories</i>		
Director and Provincial Analyst	1	
Assistant	1	
	—	2
<i>Provincial Laboratory of Public Health</i>		
Director and Provincial Bacteriologist	1	
Director of the Calgary Branch	1	
Pathologist and Provincial Serologist	1	
Assistants	4	
	—	7
<i>Other Academic Staff</i>		
Dietitians	3	
Radio Secretary	1	
	—	4
Total		775
Less duplicates		35
<i>Total Academic Staff</i>		740*

*Increase over 1949-50 due to rural practice teaching demonstrators, Faculty of Education.

Table II.—Academic Staff Appointments and Promotions

Faculty of Arts and Science

- Robert Kay Gordon, B.A., M.A., Ph.D., F.R.S.C., Professor Emeritus of English.
- Ross William Collins, M.A., B.D., Ph.D., F.R.Hist.S., from Associate Professor to Professor of History.
- John Thomas Jones, M.A., from Associate Professor to Professor of English.
- Ernest Sydney Keeping, B.Sc., D.I.C., from Associate Professor to Professor of Mathematics.
- Richard Birnie Miller, M.A., Ph.D., from Associate Professor to Professor of Zoology.
- Ralph Leslie Rutherford, M.Sc., Ph.D., F.R.S.C., from Associate Professor to Professor of Geology.
- Frederick Millet Salter, B.A., M.A., F.R.S.C., from Associate Professor to Professor of English.
- Robert Edward Folinsbee, B.Sc., M.Sc., Ph.D., from Assistant Professor to Associate Professor of Geology.
- Edward Hunter Gowan, B.A., B.Sc., Ph.D., F.R.Met.S., from Assistant Professor to Associate Professor of Physics.

John Lewis Morrison, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Chemistry.

Eric Mueller, M.A., Ph.D., from Assistant Professor to Associate Professor of Modern Languages.

James Howden Whyte, B.Sc., M.Sc., Ph.D., from Assistant Professor to Associate Professor of Botany.

Max Wyman, B.Sc., Ph.D., from Assistant Professor to Associate Professor of Mathematics.

Frank Donald Blackley, M.A., Assistant Professor of History.

Stewart Clare, B.A., M.S., Ph.D., from Lecturer to Assistant Professor of Zoology.

Douglas Richard Crosby, B.Sc., Ph.D., Assistant Professor of Mathematics.

Walter Dunham Gainer, B.Sc., M.S., Assistant Professor of Political Economy (Business Administration).

Eric John Hanson, B.A., M.A., from Lecturer to Assistant Professor of Political Economy.

Edward Moore, M.A., Ph.D., from Lecturer to Assistant Professor of Zoology.

Charles Richard Stelck, M.Sc., from Lecturer to Assistant Professor of Geology.

John Benjamin Taylor, A.O.C.A., from Lecturer to Assistant Professor of Art.

Andrew Thomas Elder, B.A., M.A., Lecturer in English.

Lawrence Archibald Fisher, B.Sc., M.Ed., from Sessional Instructor to Lecturer in Mathematics.

Denis Rowley Godfrey, B.A., Ph.D., Lecturer in English.

Margery Walker MacKenzie, B.A., B.Ed., from Instructor to Lecturer in Classics.

Gwytha Evans, to be part-time Extension Lecturer in Art.

Janet Middleton, to be part-time Extension Lecturer in Art.

Anne Turner, to be business assistant in the Drama Division, Department of Fine Arts.

Beverly Wilson, to be technical assistant in the Drama Division, Department of Fine Arts.

John Alexander Boan, B.A., part-time Sessional Instructor in Political Economy.

Hugh Brian Dunford, B.Sc., Sessional Instructor in Chemistry.

Varge Gilchrist, B.Sc., part-time Sessional Instructor in Political Economy.

Allan Stuart Hay, B.Sc., Sessional Instructor in Chemistry.

Isobel Lillian Janette Johnson, B.A., part-time Sessional Instructor in French.

Elfriede Luise Milbradt, B.Ed., Sessional Instructor in German.

Peter MacLaren Roberts, B.Ed., part-time Sessional Instructor in English.

Hubert Sampson, M.A., Sessional Instructor in Psychology.

Dorothy Kimball Shaner, B.Sc., Sessional Instructor in Mathematics.

Harold Victor Weekes, M.A., Sessional Instructor in English.

School of Commerce

John Douglas Campbell, M.Com., C.A., from Associate Professor to Professor of Accounting.

Denis Goodale, B.Com., C.A., Assistant Professor of Accounting.

School of Household Economics

Hazel McIntyre, B.Sc., M.S., from Assistant Professor to Associate Professor of Household Economics.

Faculty of Agriculture

LeRoy Peter Vernon Johnson, M.Sc., Ph.D., from Associate Professor to Professor of Genetics and Plant Breeding.
Laird Ward McElroy, M.Sc., Ph.D., from Associate Professor to Professor of Animal Husbandry.
Charles Fred Bentley, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Soils.
William George Corns, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Plant Science.
Alexander Robinson Robblee, M.Sc., Ph.D., from Assistant Professor to Associate Professor of Poultry Husbandry.
John Unrau, B.S.A., M.Sc., Ph.D., from Assistant Professor to Associate Professor of Genetics and Plant Breeding.
Warren Edward Smith, M.Sc., from Lecturer to Assistant Professor of Field Crops.
Barney Thorvaldur Stephanson, B.E., from Lecturer to Assistant Professor of Agricultural Engineering.
Roy Torgny Berg, B.Sc., Lecturer in Animal Husbandry.
Fenton Vincent MacHardy, B.E., Lecturer in Agricultural Engineering.
Svend Aage Hansen, B.Sc., Sessional Instructor in Dairying.

Faculty of Dentistry

Robert Arthur Rooney, D.D.S., Honorary Professor of Prosthetic Dentistry.
Benjamin Joseph Eastwood, D.D.S., from Sessional Instructor to Lecturer in Orthodontics.
Kay Ardell Burnham, D.D.S., Sessional Instructor in Prosthetic Dentistry.

Faculty of Education

Herbert Edgar Smith, B.A., M.A., M.Ed., Ph.D., Dean of the Faculty of Education.
George Murray Dunlop, M.A., from Associate Professor to Professor of Education.
William Dewar McDougall, M.A., Ed.D., from Associate Professor to Professor of Education.
Harold Stewart Baker, B.A., M.A., Ph.D., L.A.B., from Assistant Professor to Associate Professor of Education.
Rae MacIntyre Chittick, R.N., B.Sc., M.A., from Assistant Professor to Associate Professor of Education.
Theophilus George Finn, B.A., M.A., Ed.D., from Assistant Professor to Associate Professor of Education.
John Douglas Aikenhead, B.Sc., M.A., Assistant Professor of Education, Calgary Branch.
Brigham Young Card, B.Sc., B.Ed., Assistant Professor of Education.
Stanley Charles Clarke, M.A., M.Ed., Ed.D., Assistant Professor of Education.
Robert Ellsworth Rees, B.A., B.Ed., Ph.D., Assistant Professor of Education.
Helen Barbara Stadelbauer, B.Sc., M.A., from Lecturer to Assistant Professor of Education.
Jean Downie Dey, Lecturer in Education.
Eleanor Winnifred Jamieson, R.N., B.Sc., Lecturer in Education, Calgary Branch.

Faculty of Engineering

William Walford Preston, B.Sc., from Assistant Professor to Associate Professor of Drawing and Descriptive Geometry.

Ralph Norman McManus, M.Sc., from Lecturer to Assistant Professor of Civil Engineering.

Andrew Lee Scott, M.A.Sc., from Lecturer to Assistant Professor of Chemical Engineering.

Jack Eng, B.A.Sc., Sessional Instructor in Chemical and Petroleum Engineering.

Richard Fisher Gee, B.Sc., Sessional Instructor in Mining and Metallurgy.

Stanley Hayden, Sessional Instructor in Mechanical Engineering.

Vernon Carl Larson, B.Sc., Sessional Instructor in Electrical Engineering.

Doald Edgar Anderson MacKay, B.Eng., M.Com., part-time Sessional Instructor in Mechanical Engineering.

Milton John Ozubko, B.Sc., Sessional Instructor in Electrical Engineering.

James Francis Probert, B.Sc., Sessional Instructor in Electrical Engineering.

Frank Scott Sheriff, B.Sc., Sessional Instructor in Chemical Engineering.

Donald Rae Sutherland, B.Sc., Sessional Instructor in Civil Engineering.

Harold Lavell Morrison, B.Sc., Sessional Demonstrator in Civil Engineering.

Faculty of Law

Alexander Smith, B.A., LL.B., from Associate Professor to Professor of Law.

Andrew Royden Thompson, LL.B., Assistant Professor of Law.

Donald Mercer Cormie, B.A., LL.B., LL.M., Sessional Instructor in Law.

Harris Gillespie Field, B.A., LL.B., Sessional Instructor in Law.

William Heman Hurlburt, B.A., LL.B., Sessional Instructor in Law.

Peter Martin Owen, LL.B., Sessional Instructor in Law.

John Douglas Park, B.A., LL.B., Sessional Instructor in Law.

John Winfred Karran Shortreed, B.A., LL.B., Sessional Instructor in Law.

William Robert Sinclair, B.Com., LL.B., Sessional Instructor in Law.

Faculty of Medicine

Irving Russell Bell, B.A., M.B., F.R.C.P.(C), F.A.C.P., Honorary Professor of Therapeutics.

Nathaniel James Minish, M.D., Honorary Professor of Anatomy.

Walter Hepburn Scott, M.C., M.D., C.M., F.R.C.P.(C), Honorary Clinical Professor of Medicine.

Walter Raymond Salt, M.Sc., Secretary of the Faculty of Medicine.

Walter Campbell MacKenzie, B.Sc., M.D., C.M., M.Sc., F.A.C.S., F.R.C.S.(C), from Clinical Professor to Professor of Surgery.

Roy Llewellyn Anderson, M.D., F.R.C.S.(C), F.A.C.S., from Clinical Professor to Associate Professor of Surgery.

Walter Stirling Anderson, M.D., F.R.C.S.(C), F.A.C.S., from Clinical Professor to Associate Professor of Surgery.

James Scott Thompson, M.A., M.D., Associate Professor of Anatomy.

Douglas Oliver William Waugh, M.D., C.M., M.Sc., Ph.D., Associate Professor of Pathology and Assistant Provincial Pathologist.

Donald Robert Wilson, B.A., M.D., C.M., F.R.C.P.(C), from Assistant Professor to Associate Professor of Medicine.

Charles Bramwell Rich, B.S., M.R.C.S., L.R.C.P., F.R.C.P.(C), from Assistant Clinical Professor to Clinical Professor of Medicine.

Robert Kenneth Colquhoun Thomson, B.Sc., M.D., from Assistant Clinical Professor to Clinical Professor Neurology.

Samuel Hanson, m.i.d., M.D., from Lecturer to Assistant Professor of Pathology.

James Francis Elliott, B.A., M.D., F.R.C.P.(C), from Lecturer to Assistant Clinical Professor of Medicine.

Gordon Irving Bell, B.A., M.D., from Instructor to Lecturer in Clinical Medicine.

Robert Edward Bell, M.D., Lecturer in Clinical Pathology.

Edward Ferris Donald, M.D., from Instructor to Lecturer in Clinical Medicine.

Frederick George Elliott, M.D., C.M., F.A.C.P., from Instructor to Lecturer in Clinical Medicine.

William Bernard Leach, M.D., M.Sc., Sessional Lecturer in Pathology.

Herbert Henry Stephens, M.D., Lecturer in Clinical Medicine.

Charles Alex Allard, M.D., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Brock Heman Armstrong, M.D., Sessional Instructor in Pediatrics.

William Robert Barclay, M.D., Sessional Instructor in Clinical Surgery.

James Andrew Beveridge, B.Sc., M.S., Sessional Instructor in Hygiene.

John Winston Duggan, M.D., M.M.S., Sessional Instructor in Ophthalmology.

Joseph Dvorkin, B.A., M.D., Sessional Instructor in Clinical Medicine.

Georges Phillippe Fortier, B.A., M.D., F.R.C.S.(C), Sessional Instructor in Obstetrics and Gynecology.

Thomas Alfred Gander, M.B.E., M.D., Sessional Instructor in Pediatrics.

James Alan Longmore Gilbert, M.B., Ch.B., M.D., F.R.C.P., M.R.C.P., Sessional Instructor in Clinical Medicine.

Robert Cameron Harrison, M.D., F.R.C.S.(C), M.S., Instructor in Clinical Surgery.

Charles Heath, B.Sc., Sessional Instructor in Physiology.

Bohdan Michalshyn, M.D., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Joseph Paul Moreau, B.A., M.D., F.R.C.S.(C), Sessional Instructor in Orthopedic Surgery.

Alan Brock McCarten, M.D., F.R.C.S., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Clifford George Preece, M.D., Sessional Instructor in Clinical Medicine.

Eby Quehl, m.i.d., M.D., M.R.C.O.G., Sessional Instructor in Obstetrics and Gynecology.

Benjamin Morrill Wheeler, M.B.E., M.D., F.R.C.P.(C), from Sessional Demonstrator to Session Instructor in Clinical Medicine.

George Leslie Willox, M.D., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

Samuel Stanley Hein, B.Sc., M.D., Sessional Demonstrator in Anatomy.

John George Medway, M.D., Sessional Demonstrator in Anatomy.

School of Nursing

Isabelle MacLean Reesor, B.Sc., M.A., R.N., Lecturer in Public Health and Health Education.

Orma Jacklin Smith, B.A., R.N., Adviser to Schools of Nursing and Lecturer in Nursing.

Jeanette Fairbairn Doull, R.N., Demonstrator in the Basic Sciences.

School of Pharmacy

John Randolph Murray, M.Sc., from Lecturer to Assistant Professor of Pharmacy.

Bernard Edward Riedel, M.Sc., from Lecturer to Assistant Professor of Pharmacy.

Douglas John Stewart, B.Sc., M.Sc., Sessional Lecturer in Pharmacy.

Department of Extension

Eric Wyld Cormack, C.G., O.B.E., B.Sc., Assistant Professor in Extension.

Library

Marjorie Anne Bailie, B.A., B.L.S., Library Assistant.

Phyllis Jeanine Russell, B.A., B.L.S., Library Assistant.

James Mills Shipley, B.A., LL.B., B.L.S., Library Assistant.

Other Appointments

Alexander Joseph Cook, B.Sc., M.A., Ph.D., from Associate Professor to Professor of Mathematics, and Director of Student Advisory Services.

John William Gilles, M.A., M.Ed., Ed.D., Director of the Summer Session.

Henry George Glyde, A.R.C.A., R.C.A., Curator of the Art Gallery and Museum.

Matthew Henry Scargill, B.A., Ph.D., Warden of Athabasca Hall.

Table III.—Leave of Absence for Advanced Study

Frederick Millet Salter, B.A., M.A., F.R.S.C., Professor of English (Sabbatical).

Alexander Smith, B.A., LL.B., Professor of Law.

Rae MacIntyre Chittick, R.N., B.Sc., M.A., Associate Professor of Education, Calgary Branch (Sabbatical).

Dennis McNeice Healy, M.B.E., psc., B.A., Dip.l'Et.Sup., L-ès-L., Docteur de l'Université, Associate Professor of Romance Languages (Sabbatical).

Ralph Norman McManus, M.Sc., Assistant Professor of Civil Engineering.

Bernard Edward Riedel, M.Sc., Assistant Professor of Pharmacy.

Warren Edward Smith, M.Sc., Assistant Professor of Field Crops.

Lloyd Muir Smith, M.Sc., Lecturer in Dairying.

Kenneth Alan McMurchy, B.A., D.D.S., Lecturer in Operative Dentistry.

Table IV.—Retirements

Robert Kay Gordon, B.A., M.A., Ph.D., F.R.S.C., Professor of English.

Robert Arthur Rooney, D.D.S., Professor of Prosthetic Dentistry.

Irving Russell Bell, B.A., M.B., F.R.C.P.(C), F.A.C.P., Professor of Therapeutics.

Nathaniel James Minish, M.D., Assistant Professor of Anatomy.

Walter Hepburn Scott, M.C., M.D., C.M., F.R.C.P.(C), Clinical Professor of Medicine.

Table V.—Resignations

Zella Jeanne Oliver, B.A., M.A., Assistant Professor of Education.

John Robert Stuart Jorgens, B.Sc., M.S., Assistant Professor of Farm Management.

Glen Ross Davison, M.D., C.M., Lecturer in Clinical Medicine.

John Kenneth Heath, M.C. and bar, B.A., M.A., Lecturer in English.

Frederick McPherson, B.Sc., Lecturer in Civil Engineering.

Albert William Hardy, M.D., F.A.C.S., Instructor in Anatomy.

Helen Elizabeth Farquharson, M.A., B.L.S., Chief Cataloguer, Library.

Norma Louise Watterberg, B.Sc., B.Sc. in L.S., Library Assistant.

Calgary:	14	17	28	35	42	52	14	17	28	35	42	52
B.Ed.—4 yr.	...	...	1	...	1	...	...	...	1	...	...	...
B.Ed. in H.Ec.	...	...	...	...	9	11	...	...	...	...	30	17
B.Ed. in Ind. Arts	9	...	...	...	156	156	30	17	...	...	157	156
Temporary Licence	36	37	120	119	...	...	37	37	120	119	...	...
B.Ed. after B.A., B.Sc., etc.	...	1	...	...	...	1	...	1	...	...	...	1
Partials	59	66	149	154	208	220	81	72	149	154	230	226
Education—Full Time	3	12	13	23	16	35	3	13	13	23	16	36
	296	271	550	557	846	828	339	336	556	562	955	898
6. Engineering:	88	122	1	1	89	123	110	36	...	...	110	36
Civil	68	64	1	1	69	65	68	19	...	...	68	19
Chemical	67	59	...	...	67	59	97	37	...	...	97	37
Electrical	16	26	...	...	16	26	43	16	...	...	43	16
Mining	68	70	...	...	68	70	41	26	...	...	41	26
Petroleum	1	2	...	...	1	2	2	2	...	...	2	2
Irrigation	7	4	...	...	7	4	5	1	...	...	5	1
Engineering Physics	3	6	...	...	3	6	...	...	...	...	...	...
Engineering Geology	67	42	...	...	67	42	4	1	...	...	4	1
Not specified	385	395	2	2	387	397	368	138	...	...	368	138
Partials	1	2	...	...	1	2	2	5	...	...	2	5
7. Household Economics:	...	...	68	68	68	68	...	...	...	...	...	...
B.Sc., H.Ec.	...	...	4	6	4	6	...	...	...	...	...	...
B.H.Ec.	...	...	72	74	72	74	...	...	...	...	...	...
8. Law	56	70	3	3	59	73	81	69	...	...	81	69
9. Medicine	66	93	10	10	76	103	117	109	4	4	121	113
10. Nursing:	...	...	114	109	114	109	...	...	2	4	2	4
B.Sc.	...	...	124	131	124	131	...	...	...	...	...	...
Diploma	...	...	10	5	10	5	...	...	...	...	...	...
Dip. in Public Health	...	...	8	11	8	11	...	...	1	...	1	...
Dip. in Teach. & Sup.	...	...	256	256	256	256	...	...	3	4	3	4
11. Pharmacy	45	54	21	13	66	67	47	27	...	...	47	27
Partials	...	...	...	...	...	...	...	3	...	...	...	3

Table VII—Distribution of Students According to Year of Birth, Sex and Status as Rehabilitation or Civilian

Rehabilitation				Civilian				Grand Total
Age	Male	Female	Total	Age	Male	Female	Total	
....	....	....	....	16	2	4	6	6
....	....	....	....	17	48	86	134	134
18	1	....	1	18	199	291	490	491
19	1	1	2	19	298	284	582	584
20	1	....	1	20	308	195	503	504
21	4	....	4	21	301	119	420	424
22	4	....	4	22	214	78	292	296
23	10	....	10	23	150	49	199	209
24	72	....	72	24	73	12	85	157
25	80	1	81	25	33	15	48	129
26	101	3	104	26	17	16	33	137
27	102	3	105	27	10	8	18	123
28	80	4	84	28	11	9	20	104
29	69	3	72	29	6	7	13	85
30	58	1	59	30	9	4	13	72
31	28	....	28	31	6	3	9	37
32	26	1	27	32	5	6	11	38
33	18	....	18	33	1	8	9	27
34	21	....	21	34	5	3	8	29
35	13	2	15	35	6	5	11	26
36	5	1	6	36	6	5	11	17
37	1	2	3	37	5	4	9	12
38	9	1	10	38	5	5	10	20
39	....	....	....	39	4	2	6	6
40	4	....	4	40	1	1	2	6
41	3	....	3	41	2	1	3	6
42	4	1	5	42	2	1	3	8
43	5	1	6	43	5	4	9	15
44	1	....	1	44	3	3	6	7
45	1	....	1	45	2	2	4	5
46	....	....	....	46	....	1	1	1
				47	....	....	....
				48	1	....	1	1
				49	1	....	1	1
				50	1	1	2	2
51	3	....	3	51	....	....	....	3
				52	1	1	2	2
53	....	....	....	53	....	....	....
54	1	....	1	54	1	....	1	2
				55	1	1	2	2
				56	....	....	....
				57	....	1	1	1
				58	....	1	1	1
	<hr/>	<hr/>	<hr/>		<hr/>	<hr/>	<hr/>	<hr/>
	726	25	751		1743	1236	2979	3730

**Table VIII—Distribution of Students According to Home Address
and Birthplace**

	Home Address	Birthplace	
A. British Empire—Commonwealth:			
(a) Canada			
Edmonton	1373	664	
Red Deer	43	31	
Vegreville	18	50	
Wetaskiwin	15	26	
Camrose	24	32	
Others (on or North of Twp. 38)..	795	1392	
Calgary	467	442	
Lethbridge	89	97	
Medicine Hat	35	57	
Cardston	18	36	
Others (South of Twp. 38).....	604	2	
Alberta	<hr/>	<hr/>	2829
	3481		
Newfoundland	1	2	
Nova Scotia	1	9	
Prince Edward Island	1	3	
New Brunswick .....	....	6	
Quebec	2	15	
Ontario	13	59	
Manitoba	17	90	
Saskatchewan	128	383	
British Columbia	67	106	
Yukon and North West Territories	8	3	
Canada—not otherwise specified..	....	5	
	<hr/>	<hr/>	3510
(b) Other Parts of the British Empire	3719		
—Commonwealth:			
British Isles .....	....	53	
Dominions	1	5	
Crown Colonies	1	4	
	<hr/>	<hr/>	62
	2		
B. Countries Outside the British Empire			
—Commonwealth:			
United States of America	2	41	
Poland and Czechoslovakia .....	....	49	
Russia and Ukraine .....	....	17	
Balkan States (Yugoslavia, Roumania,	....	
Bulgaria, Albania, Greece, Turkey)		7	
Scandinavian States (Sweden, Nor-	....	
way, Denmark, Iceland)		6	
Germany, Austria .....	....	7	
France .....	....	2	
Hungary .....	....	3	
China and Japan	1	4	
Others	2	19	
Not specified	4	3	
	<hr/>	<hr/>	158
	9		
Totals.....	<hr/>	<hr/>	3730
	3730		3730

Table IX—Distribution of Students According to Pattern, Honors, or Branch

	1st Year		2nd Year		3rd Year		4th Year		Total	
	49-50	50-51	49-50	50-51	49-50	50-51	49-50	50-51	49-50	50-51
ARTS AND SCIENCE										
Pattern—B.A.:										
English	10	17	11	11	16	11	...	...	37	39
Fine Arts	7	6	4	2	7	3	...	...	18	11
Foreign Language or Lit.	8	5	11	7	7	10	...	1	26	23
History	4	2	4	11	7	4	...	...	15	17
Phil. or Psych.	27	15	22	20	27	20	...	1	76	56
Political Economy	1	3	15	5	7	15	...	...	23	23
No Pattern .....	...	...	...	...	2	1	...	...	2	1
Pattern—B.Sc.:										
Chemistry	11	11	9	13	43	11	...	...	63	35
Mathematics	3	1	2	1	1	2	...	...	6	4
Physics	2	5	8	6	5	8	...	...	15	19
Geology	36	23	15	25	21	20	4	...	76	68
Botany	1	1	1	...	...	...	...	...	1	1
Entomology	1	2	...	3	2	...	...	...	3	5
Zoology	14	8	11	17	26	25	...	...	51	50
Special Biological	17	28	11	14	15	11	...	...	43	53
No Pattern .....	...	...	...	...	8	1	...	...	8	1
Honors:										
Biochemistry	3	3	1	2	...	1	1	...	5	6
Chemistry	8	5	9	5	8	9	11	9	36	28
Classics	1	1	...	2	1	...	1	1	3	4
Conservation Biology .....	...	...	1	...	1	1	...	1	2	2
English	1	2	1	...	3	1	3	2	8	5
Geology	6	5	2	5	9	2	8	7	25	19
Mathematics	1	2	2	...	4	2	6	4	13	8
Modern Languages	1	3	4	7	6	1	4	4	20	15
Philosophy .....	...	1	...	...	2	...	1	...	3	1
Psychology .....	...	...	1	4	3	...	1	...	4	4
Physics	4	3	5	3	4	3	7	...	8	4
Political Economy .....	...	...	1	1	2	2	1	2	20	11
Business Administration .....	...	...	...	...	1	...	...	...	4	3
ENGINEERING										
Civil .....	...	...	...	...	...	...	...	...	...	...
Chemical	*15	23	49	49	47	40	88	47	199	159
Electrical	*13	16	24	11	40	21	60	36	137	84
Mining	*2	24	26	10	47	17	78	44	164	95
Petroleum	*39	8	6	10	18	8	33	16	59	42
Irrigation	*	25	25	19	29	26	16	26	109	96
Engineering Physics .....	*	...	...	...	...	4	1	...	1	4
Engineering Geology	*	1	...	...	2	2	10	2	12	5
Not specified	71	42	...	1	3	...	...	2	3	6
									71	43

*Indicates intention only. All first year students in Engineering registered in general course.

Table X—Gifts

From the National Research Council, \$38,950.21 in accountable advances for research work under the direction of the following staff members: Dr. P. J. Bowland, \$500; Dr. R. K. Brown, \$1,050; Dr. D. R. Clandinin, \$400; Dr. H. B. Collier, \$2,709.89; Dr. W. G. Corns, \$1,080; Dr. S. G. Davis, \$400; Dr. G. W. Govier, \$909.03; Dr. E. H. Gowan, \$1,658.18; Dr. H. Grayson-Smith, \$250; Dean R. M. Hardy, \$1,000; Dr. W. E. Harris, \$1,075.58; Dr. A. W. Henry, \$2,462; Dr. R. J. Hilton, \$1,492.75; Dr. E. O. Hohn, \$193.95; Dr. B. Jelinek, \$1,040; Dr. B. Jelinek and A. E. Harper, \$1,275; Dr. L. P. V. Johnson, \$2,214.75; Dr. R. B. Miller, \$1,000; Dr. J. L. Morrison, \$2,500; Dr. A. G. McCalla, \$3,421.07; Dr. K. B. Newbound, \$175; Dr. J. D. Newton, \$2,283.61; Dr. R. B. Sandin \$150; Dr. D. B. Scott, \$2,036.24; Dr. J. S. Thompson, \$878.55; Dr. J. Tuba, \$1,874.39; Dr. O. J. Walker, \$1,150; F. W. Wood, \$54.22; Dr. J. Unrau, \$3,196.

From the National Cancer Institute of Canada, grants for research under the direction of the following: Dr. H. E. Rawlinson, \$1,472.45; Dr. H. V. Rice, \$2,773.99; Dr. R. B. Sandin, \$3,500; Dr. J. Tuba, \$4,641.24.

From Northwestern Utilities Limited, \$3,700 for the purchase of a Cutler-Hammer recording calorimeter for the Department of Chemical Engineering.

From the Barley Improvement Institute, \$3,500 for barley improvement work in the Department of Plant Science.

From the Consolidated Mining and Smelting Company of Canada Ltd., \$3,000 for a project in the Department of Soils on the effects of fertilizer on nutritive values of grey wooded zone soils.

From the Alberta Seed Growers' Co-operative Ltd., grants totalling \$1,500 for research in the Department of Plant Science; and \$1,000 for experimental work with fertilizers on grey wooded soils, under the direction of Dr. J. D. Newton.

From the Provincial Department of Health, \$2,200 for the "Eye Survey Experiment" under the direction of Dr. M. R. Marshall.

From the Division of Entomology, Dominion Department of Agriculture, a research grant of \$2,000 to Dr. J. H. Stirrat.

From Brunner, Mond Canada Sales, Limited, a grant not to exceed \$2,000 to cover a fellowship and special equipment for a research project under the direction of Dean R. M. Hardy, on the use of calcium chloride in stabilizing gravel base courses in highway construction.

From the Canadian Foundation for the Advancement of Pharmacy, \$750 for a teaching fellowship; and \$1,000 to support research in the School of Pharmacy during the summer months.

From the Robin Hood Flour Mills Ltd., a total of \$1,700 for research in the Department of Plant Science on the improvement of varieties of white spring wheat in southern Alberta.

From North American Cyanamid Ltd., \$1,200 for an investigation of straw decomposition and \$500 for research on defoliation of legumes in the Department of Plant Science.

From the Defence Research Board, an increase of \$200 in the grant to Professor B. Hocking, and a grant of \$1,500 to Professor F. W. Wood.

From the Dominion Department of Health and Welfare, through Dr. A. Somerville, Director of the Alberta Health Survey, a grant of \$1,500 for the short course in hospital administration.

From the United Grain Growers Limited, \$300 for continuation of research on turkey nutrition under the direction of Drs. Clandinin and Robblee; \$500 for research on the hatchability of eggs in the Department of Animal Science; and \$500 for research in the Department of Plant Science.

From the Chemagro Corporation, \$1,250 for a testing program on a seed disinfectant in the Department of Plant Science.

From the John and Mary R. Markle Foundation, an increase from \$5,000 to \$6,000 in the annual grant to the Faculty of Medicine.

From the Canadian Construction Association, contributions totalling \$1,000 to highway research in the Department of Civil Engineering, in co-operation with the research Council of Alberta.

From the Alberta Division, Canadian Cancer Society, \$750 for the Department of Pathology, to build up a collection of lantern slides.

From Purity Flour Mills Limited, \$500 for research on white spring wheat in the Department of Plant Science.

From Maple Leaf Milling Company Limited, a grant of \$500 in continued support of research on soft wheat in the Department of Plant Science.

From the Ellison Milling and Elevator Company Ltd., \$250 for research on soft wheat in the Department of Plant Science.

From Merck & Company Limited, a supply of vitamins and antibiotics, of the approximate value of \$200, for poultry research in the Department of Animal Science.

From the Canadian Shorthorn Association, a grant of \$150 for Shorthorn cattle research in the Department of Animal Science.

From the Alberta Linseed Oil Company, \$100 for testing work with safflower in the Department of Plant Science.

From the Soldier Settlement and Veterans' Land Act, through the District Superintendent, Mr. H. Allam, a grant of \$50 for research in the Faculty of Agriculture, in recognition of assistance given by University staff members to a recent short course.

From the University of Alberta Dental Alumni Association, \$100 for additional furnishings for the office of the Dean of Dentistry.

From the Edmonton Dental Society, a contribution of \$100 to the fund for furnishing the office of the Dean of Dentistry.

From Mr. A. R. Prince, Calgary, 1,000 collections of fungi for the Department of Botany.

From Mr. Claude Gallinger, Edmonton, three steers to be fitted by the Department of Animal Science for next year's Royal Winter Fair.

From Miss Helen Norton, Boston, through the Royal Ontario Museum of Archaeology, about a dozen pieces of antique Roman glass.

From the Weber Dental Manufacturing Company, an X-ray machine, on consignment, for use in the Faculty of Dentistry.

From Mrs. J. J. Anderson, a picture of her father, the Hon. Frank Oliver.

From the Class of 1951, a picture painted by Mr. J. B. Taylor, to hang in the Library.

From a group of friends of the late Dean G. M. Smith, a memorial fund of

approximately \$600 for the purchase of books in the field of international affairs to be added to Dean Smith's library, previously donated to the University.

From the College of Physicians and Surgeons, \$400 for books for the Medical Library.

From Mrs. E. W. Sheldon, the late Dr. Sheldon's mathematical books and papers, for the Library.

From Mr. E. E. Poole, two pieces of marble statuary for the Rutherford Library.

From the Edmonton Journal, bound files of the Edmonton Bulletin.

From the University Women's Club, a grant of \$25 to the Library.

From Judge T. L. Cross, 25 volumes of States Trials; from Mrs. T. H. Field, 71 volumes of medical books; from the estate of the late Mr. J. G. Millar, 45 volumes on mathematics and physics; from the Sussex Foundation, 26 cookbooks; from the British Council, 100 volumes of recent publications in the fields of science, medicine and the humanities; from Mr. Cecil Burgess, a set of Journals of the Royal Institute of British Architects.

From the French Embassy in Ottawa, 46 books for the library of the Oral French Section of the Banff School of Fine Arts.

From Dr. and Mrs. Robert Newton, 31 pictures, the balance of "The Emma Read Newton collection".

From the Friends of the University, a total of \$1,089: \$100 from the Army and Navy Department Store, \$100 from Mr. John Dower, and \$889 from 79 other donors.

To the building fund of the Banff School of Fine Arts, through the Banff Foundation: \$10,000 from the Canadian Pacific Railway Company, \$5,000 from Mr. F. R. Graham, Vancouver, \$1,000 from the United Grain Growers Limited, and \$750 from Massey-Harris Co., Toronto.

Table XI—New Scholarships, Prizes, and Medals

Available to University of Alberta students

By the will of Mr. J. M. Douglas, \$20,000 in bonds, to establish two annual scholarships of \$300 each, one for a man student in memory of the late James McCrie Douglas, and one for a woman student in memory of his wife, the late Mary Cameron Douglas.

From the Interprovincial Pipe Line Company, an annual fellowship of \$1,000 to a graduate student for work on fundamental research problems in connection with the operation of their pipe line.

From Canadian Industries Limited, a grant of \$250 for equipment and \$750 to establish the C.I.L. Gas Fellowship, to be awarded to a graduate in chemical engineering from any Canadian university.

From a group of Alberta dentists, contributions totalling \$650 to the Post-Graduate Scholarship Fund of the Faculty of Dentistry. New contributors include Dr. A. Steeves and Dr. E. R. Upton, \$50 each, and the Calgary Dental Society, \$200.

From the Hudson Bay Mining and Smelting Co., Limited, Winnipeg, a scholarship of \$500 to a student selected by the Company.

From Husky Oil & Refining, Ltd., a fellowship of \$500 for graduate study and research in problems related to some aspect of the "black oil" industry.

From the Kappa Sigma Fraternity, a scholarship of \$200 to a student of their selection.

From the Alberta Visual Arts Board, the Birks 1950 scholarship of \$100.

From the Edmonton and District Druggists' Association, a matriculation scholarship of \$100 for students from Northern Alberta entering the School of Pharmacy.

From Mr. Lovat Dickson, a book prize of £25 for award to a third year student in the Department of English.

From the Three Sisters Chapter, I.O.D.E., of Canmore, a scholarship of \$50 to a student of their choice.

From Miss Margaret B. Hutchison, \$150 to cover the award for three years of "The Alice S. Hutchison Memorial Scholarship" in Playwriting and Short Story at the Banff School of Fine Arts.

From the Strathcona High School Alumni Association, "The George W. Robertson Memorial Prize" of \$50 for a graduate of Strathcona High School enrolling at the University of Alberta.

From Mrs. Cyril G. Wates, an annual prize of \$50, to be known as "The Cyril G. Wates Memorial Prize", for award to an astronomy student.

From the Western Canadian Society of Horticulture, a prize of \$50 per year, to be rotated among the three prairie universities, for award in the senior year of the degree course in Horticulture.

From Dr. Olive M. Fisher, a prize of \$25 to a student at the Calgary Branch who has shown outstanding merit in practice teaching in the second year of the B.Ed. program, Elementary route.

From the American Academy of Dental Medicine, a certificate and a five-year subscription to the "Journal of Dental Medicine" for the student in the Faculty of Dentistry with the best record in non-dental courses.

From Dr. Esther Prevey and Miss Ruth Prevey, continuation of the Prevey medal, now to be known as "The Warren W. and Ida E. Prevey Memorial Gold Medal in Household Economics".

From the Alberta Teachers' Association, a gold medal for award to the student showing the highest general proficiency in the final year of the B.Ed. program, to replace the medal formerly given by the Faculty of Education Alumni Association.

From Alpha Omega Fraternity, New York, a scholarship award plaque to be presented annually to a graduating student in the Faculty of Dentistry.

Available to Western Board of Music students

From Mr. and Mrs. Otto E. Woblick, \$50 yearly for five years for prizes for students in the Lethbridge area.

From the Peace River Women's Institute, an award of \$25 for a Peace River candidate.

From the Glendon Board of Trade, a prize of \$5.00 for candidates residing in Glendon.

Table XII—Staff Publications

Department of Anatomy

Rawlinson, H. E. The relation between the mammary gland and apocrine sweat gland. *Anat. Congr. Abstr.* 157-158. July 1950.

Rawlinson, H. E. The iron content of the mouse mammary gland as a measure of the factors affecting glandular development. 5th Congress International du Cancer, Paris. p. 75. July 1950.

Rawlinson, H. E. The use of an iron stain for the study of alveolar development in the mouse mammary gland. *Can. J. Res. E*, 28:1-4. 1950.

Rawlinson, H. E., and G. B. Pierce. Iron content as a quantitative measurement of the effect of previous pregnancies on the mammary glands of mice. *Endocrinol.* 46:426-433. 1950.

Rawlinson, H. E., et al. Oxygen uptake of rat mammary tissue slices. *Can. J. Res. E*, 28:217-221. 1950. (See also Department of Biochemistry.)

Shaner, R. F., and J. W. Adams. Corrected transposition in the heart of a ten months' infant. *Can. Med. Assoc. J.* 64:64-66. 1951.

Shaner, R. F. Complete and corrected transposition of the aorta and pulmonary artery and ventricles in pig embryos, and a case of corrected transposition in a child. *Am. J. Anat.* 88:36-62. 1951.

Department of Animal Science

Bowland, J. P., S. E. Beacom, and L. W. McElroy. Animal protein factor and antibiotic supplementation of small grain rations for swine. *J. Anim. Sci.* 10: 629-637. 1951.

Clandinin, D. R., Joan M. Stevens, A. B. Morrison, and A. R. Robblee. Effect of feeding lysine in the presence of glucose on its liberation by acid and enzymatic hydrolysis. *J. Biol. Chem.* 190:219-222. 1951.

Clandinin, D. R., and A. R. Robblee. Effects of methods of processing on the nutritive value of sunflower meals. *Poul. Sci.* 29:753. 1950.

Robblee, A. R., and D. R. Clandinin. Use of B-vitamins in practical turkey starters. *Poul. Sci.* 29:777. 1950.

Robblee, A. R., A. B. Morrison, and D. R. Clandinin. Use of thiouracil and diethylstilbestrol for finishing turkeys. *Poul. Sci.* 30(5):772-774. 1951.

Staff. Twenty-ninth annual Feeders' Day report. *Press Bull.* June 1950.

Department of Bacteriology

Keeping, S. Histoplasma and Brazilian Blastomyces. *Mycologia*, 62:668. 1950.

Department of Biochemistry

Collier, H. B., and Helen L. Chen. On the antihemolytic value of the blood of rabbits as measured by lysolecithin. *Can. J. Res. E*, 28:289-297. 1950.

Tuba, J., and R. K. Shaw. The relationship of dietary factors to rat serum alkaline phosphatase. I. The effect of fat, methionine, and cystine. *Can. J. Res. E*, 28:41. 1950.

Tuba, J., and R. Hoare. On rat serum lipase. I. A simple micromethod for estimation of lipase activity in rat serum. *Can. J. Res. E*, 28:106. 1950.

Tuba, J., H. E. Rawlinson, and Lorna G. Shaw. Oxygen uptake of rat mammary tissue slices. *Can. J. Res. E*, 28:217. 1950.

Department of Botany

Cormack, R. G. H. A study of leaf thickness in wheat. *Agron. J.* 42:361. 1950.

Moss, E. H. Rusts on Adiza in Alberta. *Mycologia.* 43:99-102. 1951.

Department of Chemistry

Brown, R. R., S. Kirkwood, L. Marion, S. Naldrett, R. K. Brown, and R. B. Sandin. The exchange reaction between sulphur and di-benzothiophene-5-dioxide. *J. Am. Chem. Soc.* 73:465. 1951.

Davis, S. G., M. R. Foran, J. D. B. Ogilvie, J. A. Pearce, and C. A. Winkler. Dynamic adsorption of ammonia, of butane, of cyanogen chloride, and of water vapour by charcoals. *Can. J. Tech.* 29(4):190-216. 1951.

Rimmer, R. W., R. G. Christiansen, R. K. Brown, and R. B. Sandin. The reduction of some 9,10-dihydroxy-9, 10-dihydro derivatives of phenanthrene and anthracene. *J. Am. Chem. Soc.* 72:2298. 1950.

Rosenthal, A., and R. K. Brown. The reactivity of cellulose I. (Differences in nitrogen content and viscosities of the nitrates of dewaxed cotton linters alternatively wetted with water and dried directly.) *Pulp & Paper Mg. Can.* 51(6):99-105. 1950.

Department of Civil and Municipal Engineering

Blench, T. Notes on the design of drops for erodible channels. *Eng. J.* 33:281-282. 1950.

Blench, T. A revised Manning Flow formula. *Tech. Paper No. 2, Eng. Inst. Can.* 1950.

Blench, T. Hydraulics of sediment-bearing canals and rivers. *Evans Industries Ltd., Vancouver, U.S.A. copyright.* March 1951.

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Blench, T. Anomolous behaviour of wells in waterlogged areas. *La Houille Blanches.* January-February 1951.

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Bouthillier, P. Treatment of farm water supplies. *Bull. published under auspices of Prairie Rural Housing Committee.* 1950.

Hardy, R. M. Construction problems in silty soils. *Eng. J.* 33:775-779. 1950.

Hardy, R. M. Engineering education and the employer. A panel discussion. *Eng. J.* 33:956-963. 1950.

Hardy, R. M., and P. J. Rivard. Stress distribution below pavements under trolley bus loadings. *Proc. Highway Res. Bd.* 30:396-406. 1950.

Department of Dairying

Erdman, I. E., and H. R. Thornton. Psychrophilic bacteria in Edmonton milk and cream. I. Numbers. II. Kinds. *Can. J. Tech.* 29(5):232-242. 1951.

Thornton, H. R. The inadequacy of the Canadian dairy research program. *Agr. Inst. Can. Rev.* March 1951.

Faculty of Dentistry

Hamilton, W. Scott. Some opinions relating to oral surgery. *J. Can. Dent. Assoc.* October 1950.

Department of English

Godfrey, D. R. The essence of Aldous Huxley. *English Stud.* Amsterdam. June 1951.

Jones, J. T. Tactics in Scott's novels. *Can. Army J.* 4:59-65. Summer 1950.

Scargill, M. H., and M. Schauch. Three Icelandic Sagas. Princeton & Oxford Univ. Presses for the Am. Scandinavian Foundation. pp. 150. 1950.

Salter, F. M. The problem of King John. *Trans. Roy. Soc. Can. Third Ser. Sec. II.* 43:115-136. 1949.

Department of Entomology

Hocking, B. Further tests of insecticides against black flies, and a control procedure. *Sci. Agr.* 30:489-508. 1951.

Hocking, B. Some peculiarities of bee behaviour. *West. Can. Beekeeper*, 14(2):3-7. 1951.

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Strickland, E. H. The middle of the road. *Int. Great Plains Conf. Ent.* 23rd Annu. Rep. 36-45. 1950.

Department of Geology

Rutherford, R. L. Structural interpretation of loci of petroliferous parts of Devonian reefs in Edmonton area, Alberta, Canada. *Bull. Am. Assoc. Petrol. Geol.* 35(4):844-853. 1951.

Warren, P. S., and C. R. Stelck. Succession of Devonian faunas in Western Canada. *Trans. Roy. Soc. Can. Sec. IV*, 44:61-78. 1950.

Department of History

Long, M. H. Charles Alexander Magrath, 1860-1949. *Trans. Roy. Soc. Can. Sec. III*, 44:91-96. 1950.

Thomas, L. G. Canon William G. Newton. *Edmonton Churchman*. September 1950.

Faculty of Law

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Smith, A. Liability to suit of an agent of the Crown. *Univ. Toronto Law J.* 8:218-250. 1950.

Department of Medicine and Clinical Medicine

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Bell, R. E., and R. K. Thomson. Treatment of Leukaemia with cortisone. *Can. Med. Assoc. J.* 64:43-47. 1951.

Department of Mining and Metallurgy

Clark, K. A. The hot water washing method for the recovery of oil from the Alberta Tar Sands. *Can. Oil and Gas. Ind.* 3(6):46. 1950.

Clark, K. A. Athabasca bituminous sands. *Fuel*, 30:42. 1950.

Pasternack, D. S., and K. A. Clark. The components of the bitumen in Athabasca bituminous sand and their significance in the hot water separation process. Rep. 58. Res. Coun. Alta. 1950.

Department of Obstetrics and Gynecology

Vant, J. R. Postpartum blood loss: An analysis of 6,000 cases. *Am. J. Obstet. Gynae.* 60:483-488. 1950.

Department of Ophthalmology and Rhino-Oto-Laryngology

Clark, W. B., and J. W. Duggan. The use of dibenamine in the treatment of acute congestive glaucoma. *Am. J. Ophthal.* 34(4):535-542. 1951.

Duggan, J. W., and S. R. Gaines. The ocular complication of erythema exudativum multiforme. *Am. J. Ophthal.* 34:189-197. 1951.

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School of Pharmacy

Anderson, A. J. Inside the Arctic Circle. *Can. Pharm. J.* 84:14-15. 1951.

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Henker, G. A., and M. J. Huston. Yopo—A South American snuff. *Can. Pharm. J.* 83(18):8-9. 1950.

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Huston, M. J., B. E. Reidel, and J. R. Murray. Shellacing kymograph records. *Can. Pharm. J.* 83(20):18. 1950.

Huston, M. J. Addiction to barbiturates. *Can. Pharm. J.* 84(3):14-16. 1950.

Huston, M. J. A note on withdrawal symptoms. *Bull. Can. Conf. Pharm. Fac.* 4(3):39. 1951.

Huston, M. J., and A. J. Anderson. Financial position of university teachers. *Bull. Can. Conf. Pharm. Fac.* 4(2):20. 1951.

Martin, A. W., and M. J. Huston. Water compartments of a gastropod mollusc. *Anat. Rec.* 108(3):Sec. 4. 1950.

Murray, J. R., and M. J. Huston. A simple pulsating perfusion apparatus. *Sci.* 3(2895):692. 1950.

Department of Physics

Cormack, D. V., C. F. Bentley, and D. B. Scott. Fertilizer studies with radioactive sulphur. *Sci. Agr.* 31:41-51. 1951.

Grayson-Smith, H. Theory of rectifiers and transistors. *Bull. Can. Assoc. Phys.* 6(2):9-10. 1950.

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Report of Dean John Macdonald of the Faculty of Arts and Science

Recommendations for Degrees

The number of students recommended for degrees at the Convocation of May, 1951, is as follows:

For the B.A. degree	90
For the B.Sc. degree	126

Progress During the Session

There are no special developments to report for this Faculty during the past season. The Faculty set up a committee to look into the question of possible divisioning of it. The committees recommendation in regard to this as an immediate step was negative and it was accepted by the Council. Arising out of the work of that committee, it was decided to set up another committee to examine the pattern system in the light of five years' experience of its operation. It is felt that a considerable number of minor adjustments may be needed. The committee would report at the beginning of the next session.

During the 1948-50 session, the Faculty Council made certain recommendations in regard to matriculation changes. These recommendations, along with those of other faculties, were considered by the General Faculty Council. The result was a revision of matriculation as a whole which I have every reason to expect will prove satisfactory to the Faculty of Arts and Science.

Departmental Reports

I wish to append reports concerning the individual departments as follows:

Botany—Dr. Moss reports that the aerobiological survey which is supported by a Federal Public Health Research Grant has been extended to give a wide coverage of central and southern Alberta. Ecological investigations in Northern Alberta under the sponsorship of the Dominion Department of Agriculture have been continued during the session.

Chemistry—Dr. Walker reports that there has been a decrease in the number of students registered in this department. He regrets in particular a decrease in the registrations for the Honors course. He states that they can place many more Honors graduates than are actually taking the course.

During the summer of 1950, Dr. R. K. Brown was carrying out research at the National Research Council in Otaawa and Dr. W. E. Harris was engaged in research on rubber at the Polymer Corporation in Sarnia. Most of the research programs mentioned in last year's report are still being carried on. Dr. Walker expresses concern over the possibility that, under the new arrangement for Cancer Research, the funds allotted to Dr. Sandin and Dr. Brown for this purpose will be withdrawn. He feels that there is a situation here which needs consideration.

Classics—Dr. Hardy gave five lectures to the Ontario Educational Association in Toronto in April, 1950. One of these lectures has since been published in the Report of the Convention. An article on Greece has also been published in the Ahepa Magazine. Dr. Johns and Dr. Hardy have given a number of lectures to groups and clubs in the city of Edmonton and elsewhere in the province.

The department has purchased five Greek vases, all originals. These, as well as the department's collection of electrotypes of Greek and Roman coins will be on view in the Rutherford Library. The Department has also received a gift of eleven pieces of Roman glass. These pieces date from the Hellenistic period, 2nd century, B.C., through the 1st to the 4th centuries A.D. They are a gift from the Norton Collection in Boston.

English—Professor Jones (for Professor Salter) reports that there has been an increase in the number of students taking English 2. It now stands at about 570. Following on Dr. Gordon's resignation, Professor Salter has been appointed Head of the Department. He has been on sabbatical leave for the session. His special studies led him to the British Museum, the Bodleian Library and the Cambridge University Library and the Public Record Office, London.

Fine Arts

Art—Professor Glyde reports that this division was very successful with respect to exhibitions and extension work this past year. The extension work was so heavy that it was necessary to carry four part-time instructors. There was an approximate enrolment of 225 in the Edmonton extension courses and 275 in the community field.

Professor Glyde also states that in the country there were twelve centers operating courses. There was a series of ten lectures on Art History and Appreciation given by members of the Art staff from January to April. Professor Glyde was officially installed as a Royal Academician last autumn. Mr. J. B. Taylor, Mr. M. W. MacDonald and Janet Middleton were elected to the Alberta Society of Artists.

A canvas of Professor Glyde's was presented by the Royal Canadian Academy to the National Gallery of Canada. Janet Middleton was honored by having work reproduced and included in the Travelling Exhibition. Work by Gwytha Evans and J. B. Taylor was also represented here. Members of the Division co-operated in producing designs and costumes for the Studio Theatre plays. Certain exhibits have come to the University through its membership in the Western Canada Art Circuit. Professor Glyde has the details of this. During the period when the Western Canada Art exhibits were not available, some half-dozen exhibitions were arranged by the Department itself.

Music—Mr. Eaton reports a total of 69 students registered in Music courses this session. A concert by the choral laboratory and the University symphony orchestra was presented. Extension courses were given in Music Appreciation and in Choral Leadership. These were conducted respectively by Mr. Crighton and Mr. Eaton.

Drama—The setting up of a Studio Theatre with a full-time production manager and business manager led to an extension of the work of the Drama Division. Five productions were undertaken, each of which played for nine regular performances. The final production, *Macbeth*, gave two performances in Red Deer. The Studio Theatre in this way contributed greatly to the vitality of the Drama Division. The Painting Division and the Music Division collaborated each in its own way in the production of the plays. Mr. Orchard remarks that the Studio Theatre has already attracted attention in theatrical circles in Canada.

Geology—Dr. Warren reports that there is a large registration in Geology courses owing to the oil developments in the province. He remarks, however, that the ordinary three-year graduates are now meeting strong competition for employment from outside men whose Geology training has reached a more advanced level. The result is that there is definite pressure on the department on the part of our own students to be accepted for master's work. As a matter of policy, the department considers it important to give preference to our own graduates.

The department has made the usual contribution as a service department to other faculties, particularly Engineering.

History—Professor Long reports that Mr. Thomas and Mr. Blackley have both been working on their doctoral theses during the session. Mr. Thomas's dissertation on the History of Alberta from 1905 to 1921 is to be published as a volume in the so-called Social Credit Series of Studies which is sponsored by the Canadian Social Science Research Council. Professor Long himself has been working on a prospective book, and a revised edition of Dr. Collins's History of Mediaeval Civilization in Europe will soon be published by Ginn and Company.

Mathematics—Professor Campbell reports that Professor A. J. Cook has withdrawn from the Department to accept a full-time appointment as Director of Student Advisory Services. Dr. D. R. Crosby, who had a distinguished record as a student in Mathematics and an ex-Rhodes scholar has been appointed to the staff. A very real loss was suffered by the death of Professor J. G. Millar of the staff of the Calgary Branch. Mr. Millar had already begun to make a very real contribution to the academic and social life of the University. Dr. Max Wyman has been elected a Fellow of the Royal Society of Canada. The Department of Mathematics records its great regret over the death of Professor Emeritus E. W. Sheldon; the death which occurred on June 14, 1950, was quite unexpected.

Modern Languages—Professor Owen reports that Messrs. Healy, Greene and Faucher have been collaborating on a series of texts for instructional purposes dealing with the literature and art of the 19th century. Dr. Greene is doing the same for the 18th century period. Professor Owen is still occupied with his collection of material for a history of Germanic culture. Professor Healy is on sabbatical leave and working in Paris. Mr. Pierre Gobin, who has been departmental assistant in French for one year by arrangement with the French Ministry of Education, has given valuable service. The arrangement, which was possible this session for the first time, has been very satisfactory.

Philosophy and Psychology—One of side of Philosophy, there is nothing special to report. The undergraduate classes in philosophy are well attended and certain students have been carrying on work at the graduate level.

On the Psychology side, Dr. Smith has become a member of the Associate Committee on Applied Psychology of the National Research Council. During last summer, he was again Chairman of the Membership Committee of the Canadian Psychological Association. In February, he lectured to personnel officers of the R.C.M.P. Last year, he became a member of the Executive Council of the Edmonton Council of Community Services. Dr. Spearman is planning a tour during the summer in connection with further work in his own special field. This tour will take him to Montreal, New York and possibly Washington.

Physics—Professor Grayson-Smith reports that the members of his staff are continuing with their various research programs. Dr. D. B. Scott is conducting research in nuclear physics. Dr. R. J. Lang has been conducting his researches in spectroscopy. Dr. K. B. Newbound has also been operating in this field. The long-term program of solar radiation studies under Dr. Gowan has continued throughout the year. Measurement of the dielectric constants at low temperature of certain iron-group salts, under the direction of Dr. Grayson-Smith, has been completed. Opportunities for Honors B.Sc. and M.Sc. graduates in Physics continue to be good. All 1950 graduates have obtained either satisfactory positions or else assistance to continue advanced studies at other institutions.

Political Economy—Professor Mayo reports that the Department lost its administrative head through the appointment of Professor Stewart to the Presidency of the University. The Dairy Farm cost study continues. Mr. V. Gilchrist has continued with his research on the P.F.R.A. Research has also been continued in municipal government with funds from the Rockefeller Foundation. Two reports have been issued from this research, first by D. Smiley—assessing the County Act of Alberta, and second by L. Calhoun—assessing Uniform City Charters. Copies of both these reports were forwarded to the Department of Municipal Affairs.

The members of the Department are involved in a research project which is directed towards an evaluation of the legislative program of the Social Credit Government since 1935. Professor Mayo acted as Chairman of a Board of Arbitration between the Smoky Lake School Division and the Alberta Teachers' Association. He also gave a number of radio talks on the *Behind the Headlines* series. Mr. Wise also gave two radio talks. Dr. Mayo and Mr. Hanson each gave four lectures in the Department of Extension course—Canadian Economic Problems. Mr. Wise also gave one lecture in this series.

Zoology—In this department, it is reported that certain courses in Art were contributed to the Department of Fine Arts program by Dr. Rowan and Dr. Clare. The registration of the department as a whole continues fairly high and there are

eight students registered for the M.Sc. degree. Dr. Rowan and Dr. Moore continue to conduct their Annual Cycle Questionnaire on the abundance of various mammals and upland game. Dr. Rowan is continuing his research on the rabbit cycle.

In co-operation with the Department of Lands and Forests, the Zoology Dept. has established a biological station on the Sheep River. The station operates during the summer months. This summer, research in big game will be started. So far the research has been on the survival of hatchery-reared trout in streams. Dr. Miller continues as chairman of the Dominion committee which co-ordinates research on whitefish infestation across Canada. The Department is now represented on the National Research Council's Associate Committee on Fresh Water Biology, which apportions funds for research in this field.

Report of Professor Andrew Stewart, Director of the School of Commerce

The work of the School of Commerce was strengthened by the appointment of Mr. D. Goodale in the Department of Accounting, as Assistant Professor of Accounting, and Mr. W. D. Gainer in the Department of Political Economy, as Assistant Professor of Business Administration. These appointments resulted in the replacement of part-time instructors and made it possible to introduce for the first time the fourth year of the Honours in Business Administration program.

Two students registered in the Honours in Business Administration program and completed requirements for the degree. There were 34 students in the third year of the Bachelor of Commerce program, and of these 27 completed requirements for the degree. In the 1949-50 report, reference was made to the decline in registrations in the first year. The second year class in 1950-51 numbered 25. There was, however, a substantial increase in registrations in the first year to 47.

Employment opportunities for graduates in Commerce remained good. Through the regular placement channels and with the assistance of the Employment Committee of the Commerce Club, all graduands were placed early in suitable employment. Sixteen of the graduates of 1950-51 are proceeding to article toward professional accountancy.

Close liaison has been maintained with the Institute of Chartered Accountants, through the Board of Review, and also with the Dominion Association, through articles contributed to the magazine and work by Professor J. D. Campbell on examinations. Arrangements have been completed with the Registered Industrial Accountants for certain exemptions to graduates proceeding to examinations of that body.

The Department of Accounting has continued its research work in the field of financial statement analyses, using the published statements of Canadian corporations.

The program of evening lecture courses for the Alberta Society of Registered Cost Accountants was successfully continued. The School of Commerce has discussed the possibility of evening classes for credit toward the B.Com. degree, and this matter is now under consideration by a committee of General Faculty Council. During the year the Department of Extension sponsored a Short Course for Purchasing Agents, and lectures in Business Administration were given by the Department of Accounting.

Report of Professor Mabel Patrick, Director of the School of Household Economics

This year there is a twenty-four per cent increase in the number of students registered in first year, 31 as compared with 25 in 1949-50.

In addition, 82 students from the School of Nursing and 37 from the Faculty of Education are registered in the Department of Household Economics.

Four graduates have been studying at other Universities during the year. Three have received Master's degrees.

The demand for graduates, especially in the fields of Education and Institutional Management, exceeds the supply. This year only a few of the large number of requests for dietitians have been filled. Many of these requests were from other provinces.

Of the senior class, twelve students have accepted student training appointments. This is a decrease of forty per cent from two years ago.

Three students plan to enter the Faculty of Education next session, one plans to continue her studies, two have accepted positions, two are to be in their own homes and three are undecided.

Report of Dean A. G. McCalla of the Faculty of Agriculture

This year's report from the Faculty of Agriculture must begin by recording the sense of loss to the Faculty and to agriculture throughout Canada resulting from the untimely death of the late Dean R. D. Sinclair. Dr. Sinclair grew up with the Faculty, having been a member of the first class in Agriculture and, with one brief break, having been associated with the Faculty since he entered the University as a freshman. He guided staff and students through years of heavy post-war registration and carried exceedingly heavy duties both within and without the University. His enthusiasm will be felt for many years to come, because he had an important influence on all Agriculture graduates over a period of more than twenty-five years.

It has been customary in reports of recent years to classify the activities of the Faculty of Agriculture as (1) academic, and (2) experimental. Most of the departments in the Faculty, however, include in their own reports a third distinct type of activity, that of extension. Such activity has been referred to in earlier reports and this year is covered in a separate section.

Academic

During the year just closing, registration in the Faculty of Agriculture totalled one hundred and sixty-five, exactly one hundred less than in 1949-50. This decrease reflects the graduation last spring of our largest class, and the admission, in September 1950 of a freshman class of only thirty. Only one of these thirty students is a veteran, and the group in general is younger than most of our recent freshman classes. Nine of the thirty entered the Faculty with the diploma from a Provincial School of Agriculture.

Seventy-two students were registered in the final year, forty of them veterans. This is the last group of veterans and the last large graduating class in prospect. It is, however, far below last year's class, which included one hundred and twenty-six students. One hundred and twenty-two of them received their B.Sc. degrees in May or October, 1950.

The extensive research program in the Faculty makes it possible and desirable to have a number of graduate students working toward advanced degrees. During the past year forty students were registered with the School of Graduate Studies. Seventeen of these are candidates for the M.Sc. degree this spring. The demand for our better graduate students has been good, and those students planning on going on to further post-graduate work have been very successful in securing scholarships.

The records show that increasing numbers of our graduates are appointed to senior and responsible positions in Canada, the United States, and elsewhere.

The first year students were registered for the first time in the modified program. The principal changes involved the consolidation of Animal Husbandry 1, Poultry Husbandry 1, and Veterinary Science 1 into a more general introductory course, Animal Science 1; and the elimination of Field Crops 1 and Horticulture 1 and the introduction of a general survey course, Plant Science 1. The changes make it possible to give these students more time on the basic sciences and on English, a new course, English 5, being compulsory for all students either in the first or second year.

The relations between students and staff have been very good during the past year. The Student-Faculty Relations Committee, in its fourth year, reported that students made no submissions that required action.

Experimental

Research programs in several departments have for many years taken a considerable part of the time of staff members. The past year has seen a continuation of these programs with expansion in some fields. The research projects serve general purposes, the total value of which cannot be at all accurately estimated. Some of the projects are designed to secure answers to specific questions or problems. Some, on the other hand, represent continuing investigations that serve to build up a wealth of information on problems that can be solved only when long-term records are available. A third and important field of research is in basic scientific investigations, the results of which serve to extend our knowledge and understanding rather than to solve particular problems. This last type of research is particularly well adapted to the training of graduate students and, therefore, has a major place in our work.

The Department of Animal Science has continued research mainly in the field of nutrition. A number of studies with growing and fattening pigs showed that pantothenic acid and thiouracil appear to have little value; while animal protein factor supplements containing antibiotics resulted in faster gains, in some cases at the expense of carcass quality. Data were obtained on the vitamin A and vitamin C content of sows' milk and of the blood of growing pigs.

Co-operative experiments were carried out on rations for pregnant ewes and on supplementary feeder-lamb rations with combinations of linseed oil meal, cobalt, and urea. The feeding value of frozen wheat for steers was investigated.

Several major projects with poultry also stress the use of various supplements in feeding rations. The effects of estrogens for finishing poultry; of vitamin B₁₂ and antibiotics on the production and hatchability of eggs and on chick quality; and of methods of processing on the nutritive value of sunflower meal have been investigated during the past year. Work on rations for broilers and turkey poults has found practical application by broiler and turkey producers in the province.

Research in the Department of Dairying included completion of studies of the psychrophilic bacteria and lactic acid streptococci in Edmonton milks and creams; and studies on high-temperature short-time pasteurization, colour of butter, and development of a Swiss-type cheese suitable for commercial production.

The Department of Entomology has investigated two species of cutworms; blackfly control; insect flight range studies using a wind tunnel; and plastic comb foundation for honey-bees. Practical employment of these plastic combs should be possible with materials now assembled.

Assistant Professor Hocking has continued his co-operation with the Defence Research Board. He spent parts of last summer in the Arctic and visited entomological establishments in England and Denmark. He was elected to Fellowship in the Royal Entomological Society of London in March of this year.

The outstanding event in the Department of Plant Science was the opening of the new Field Laboratory last summer. This building is a most useful and welcome addition to our facilities.

Research and investigational work in the Department of Plant Science covers many fields. An antibiotic has been successfully used to control covered smut of oats without causing significant injury to the seed. It was not so successful with barley and wheat, and two other antibiotics were not successfully used. Barley seed treated with hot water for controlling loose smut was benefited greatly by subsequent treatment with a mercury dust. Extensive tests on the effects of seed treatment of vegetable seeds were carried out. The barley disease survey was continued.

Work in horticulture included studies on bitter potatoes, and a number of investigations with vegetables, fruits, and ornamentals. The co-operative fruit-breeding project was extended considerably, although the growing season was poor.

Important progress was made in the field of cytogenetics. Excellent fundamental studies are under way and this work is attracting nation-wide attention. Three papers are in preparation for publication. Crosses involving Thatcher (hard wheat) and Lemhi (soft wheat) with two wheat-grass derivatives are aimed at producing strains of wheat resistant to the race of stem-rust that did extensive damage in parts of Western Canada in 1950.

Studies with the use of chemicals in weed control and legume defoliation were continued. The effect of 2,4-D and other hormones has been extended. Basic physiologic effects of these chemicals have been studied and results published.

Much of the plant breeding material in advanced stages was lost in a hail storm on July 28. Reserve seed will permit repetition of the tests in 1951. Material in earlier stages was not affected. Major emphasis was again put on barley, soft wheat, and oil-seed crops.

Research in Soils includes work on fertilizers and rotations, studies in water erosion, microbiological studies, and soil surveys. The experiments with radioactive sulphur have yielded valuable information on the use of applied and native sulphur by legume and grain crops. Fertilizer experiments continued to show the need for phosphates on the black soils.

The experimental plots for studying water erosion established at St. Albert in 1949 were continued in 1950. These plots, equipped to measure the amounts of run-off water and washed soil, are the only ones of their kind in Western Canada and have provided the first experimental data on local erosion losses.

Microbiological studies have shown that legumes, especially alfalfa, in many farmers' fields are poorly nodulated. Superior cultures for use in inoculation can be prepared for distribution to farmers.

Co-operative soil surveys have been continued. Particular interest centers on the work being carried out in the areas to be brought under irrigation by the St. Mary's and Red Deer River projects.

Research in most departments was partially supported by generous assistance from many sources. Large grants were made by the National Research Council, and by many commercial and industrial concerns. Materials such as chemicals were supplied by various companies. All such assistance is gratefully acknowledged.

Extension and Public Relations

Members of the Faculty of Agriculture devote considerable time to extension activities through radio addresses, meetings, correspondence, publications, and personal interviews. It is through these activities that we keep in touch with the farm public and with many groups associated in a number of ways with agricultural production and marketing. Some of these extension activities are quite distinct from those under the supervision of the Department of Education, but we have excellent relations with that Department.

Members of the Faculty took part in short courses, including those at Calgary, Edmonton, Lethbridge, Athabasca, and Lacombe; judged at several Seed Fairs; took part in farm-planning meetings in co-operation with the Provincial Department of Agriculture; assisted at or conducted refresher courses in specialized fields or for special groups. Several bulletins were prepared for distribution to farmers, and regular annual issues of the Press Bulletin were prepared by each of the Departments of Animal Science and Plant Science. Ten thousand copies of the latter are now distributed annually.

The twenty-ninth annual Feeders' Day at the University Livestock Farm drew approximately seven hundred visitors. The first Poultry Field Day met with an enthusiastic reception by some two hundred representatives of the poultry industry. The Soils Field Day at Breton was attended by over three hundred people. The ninth annual Visitors' Day in the Department of Plant Science was attended by two hundred and fifty people and featured the opening of the new Field Laboratory.

Many hours of time were devoted to answering letters and to personal interviews. These features of our extension work are increasing in volume and importance and give us some of our best personal contacts.

The Agricultural students made a substantial contribution to good public relations by again holding a Visitors' Day. While most of the nearly two thousand guests were students from high schools and Schools of Agriculture, representatives of business and industry also attended. The venture was a success in every way despite somewhat adverse weather.

The report is, of necessity, a very sketchy review of the activities of the Faculty of Agriculture during the past year. It is respectfully submitted on behalf of all members of our Faculty.

Report of Dean W. Scott Hamilton of the Faculty of Dentistry

During the past year two men have been engaged in graduate study in American universities, on Kellogg Fellowships. Dr. McMurchy is at Columbia

University in New York City, and Dr. S. R. Van Alstine is at Michigan in Ann Arbor.

Various members of our faculty have appeared as lecturers and clinicians before professional groups in Western Canada.

In September the faculty conducted a refresher course which was well attended. Dr. L. S. Fosdick, Department of Biochemistry, Northwestern University, was our guest lecturer.

Dr. H. R. MacLean is a member of the sub-committee of the National Research Council.

Dr. J. D. McLean is chairman of the Committee on Ethics, Canadian Dental Association.

Dr. W. Scott Hamilton is chairman of the Council of Dental Education, Canadian Dental Association.

Two Displaced Persons from Europe were among our student body. Five others were examined and some of them will be registered during the 1951-52 session.

Report of Dean H. E. Smith of the Faculty of Education

Of first rate importance for the efficiency of, and harmony within, this Faculty was its organization in September 1950, in three Divisions, Secondary Education, Elementary Education and Educational Psychology. The chairmen named were Professor Coutts, Professor McDougall, and Professor Dunlop. This divisioning has had various salutary effects, but most particularly in the wider sharing of responsibility, in the increased opportunity for group collaboration, and in improved possibilities of promotion. Two of the Divisional chairmen have submitted separate reports which are included herewith. The Division of Elementary Education has had an equally successful year and is thoroughly well organized for its work.

A good number of our staff have made progress in the improvement of their academic qualifications: Mr. Coutts received a Ph.D. degree from Minnesota, as noted elsewhere in this report. Mr. Dunlop is taking his final orals for the Ph.D. degree from Columbia on May 7th. Mr. MacGregor has his work completed and has been asked to stand by for a call to the University of Oregon in mid-May to defend this thesis. Mr. Doucette and Mr. Finn of the Calgary Branch received the Ed.D. degree from Stanford University at its spring convocation in 1950. Miss Caldwell received the B.Ed. degree, Alberta, at our October convocation. Several others are continuing with their work this summer.

Work in research and publication is likely to bear fruit next year. A number of research projects have been completed and are ready for formulation. It will be our policy to relieve as far as possible from routine duties men who are working on specific problems. From the reports attached it will be seen that considerable of our time and effort goes into collaboration with various committees of the Department of Education.

In addition to the activities noted elsewhere the following may be of interest:

Dr. McDougall has been working on a textbook, intended for Grade VII, VIII, and IX use, to be entitled, I think, A History of the British Commonwealth. This project is being watched with interest from various parts of the Commonwealth.

A semi-popular article by Dean Smith, called Can Schools Improve Society, was released for publication by the Rural Editorial Service (A Kellogg Foundation

organization) in September 1950. It has appeared in some fifteen State and Provincial Teacher magazines to date.

A radio talk given by Dean Smith on the Faculty of Education Series was published by the A.S.T.A., and was copied by a number of Trustee magazines in Canada.

Canadian Education Week, for Northern Alberta, was organized by Dean Smith by request of the Alberta Education Council. Professor Dunlop co-operated wholeheartedly.

The number of M.Ed. candidates on our roster continues to increase. Although the number of intramural candidates has, with the passing of D.V.A. personnel, been reduced almost to zero, a good bit of work is entailed in supervising the activities of candidates proceeding with their programs either extramurally or by summer session. The School of Graduate Studies has agreed that the requiring of a B.Ed degree for entry to M.Ed. candidacy was unnecessarily restrictive and has approved of its discontinuance, provided suitable alternative safeguards are substituted. The brochure, Abstracts of Theses in Education 1929-1949, completed by Dean Smith for publication a year ago, has proven very useful.

The services of the Education clinic, under the direction of Professor Dunlop, are developing satisfactorily. A detailed report of this year's work will be forwarded in due course.

The Faculty staff duties continue to be varied and heavy. The teaching loads are substantial, and to these are added the duties associated with practice teaching and with extension services to teacher organizations and Home and School Associations.

The Faculty appreciates the interest of the Department of Education and of the Department of Public Works in the maintenance and improvement of the plant and grounds. Electric service and lighting have been, and are being, greatly improved. The approaches are now in concrete and the playgrounds have been levelled. The caretaking service has been excellent and the staff thoroughly co-operative.

Report of the Division of Secondary Education

The chief contribution of the Division of Secondary Education to teacher training in 1950-51 has been the inauguration of an improved plan of student teaching concentrated in the second year of the Bachelor of Education program. Through co-operation with the University's timetabling committee and the faculties concerned, it has been possible to schedule student teaching every afternoon of the week for a full half year. This provided the advantage of continuity of experience and concentration of effort. During the half year in which the student teaching was done, the trainee spent three weeks in each of Grades IV-VI, Grades VII-IX and Grades X-XII. By this plan, each participating student teacher was given ninety hours of classroom experience. In this transitional year, one hundred and twelve students received the benefit of this plan. In addition, there were one hundred thirty-three trainees of the third and fourth years who completed student teaching according to the program in operation in past years. The total student-teaching group of two hundred forty-five trainees was under the direct supervision of Dr. H. S. Baker and Dr. H. T. Coutts. Guidance was given to smaller groups of these trainees through the committee of consultants consisting of Dr. H. S. Baker, Mr. B. Y. Card, Dr. S. C. Clarke, Dr. H. T. Coutts, Mr. G. M. Dunlop,

Dr. J. W. Gilles, Mr. H. C. Melsness, Dr. H. E. Smith, Mr. H. T. Sparby, and Mr. B. E. Walker. The staff of demonstration teachers directed the actual classroom experiences of the student teachers and made weekly evaluations, which were reported to the Division of Secondary Education.

Between the Division of Secondary Education and the Department of Education there is a close liaison. All members of the Division of Secondary Education have made contributions to the curriculum and examination branches of the Department of Education during the past year. They have taken an active part in policy making, curriculum construction, and examination construction.

Mr. H. T. Sparby and Mr. B. E. Walker are both working on research projects related to the field of secondary education in Canada.

The following are other contributions made to education in the Province of Alberta in 1950-51 by members of the Division of Secondary Education:

(1) A bulletin, *Aids to French*, King's Printer, Department of Education, Edmonton, was published in 1950 without recognition of its editor and author. This was the work of Mr. B. E. Walker.

(2) Dr. H. S. Baker and Mr. H. C. Melsness contributed articles to the Education Week brochure, *Education is Everybody's Business*.

(3) Dr. H. E. Smith, Dr. H. S. Baker, Mr. G. M. Dunlop, and Dr. H. T. Coutts prepared a *Brochure for M.Ed. Students* to guide those students doing graduate work.

(4) Dr. Coutts gave a series of four lectures on religious education in schools to the United Church ministers at their annual school of religion.

On December 21, 1950, the degree of Doctor of Philosophy was conferred on Mr. H. T. Coutts by the University of Minnesota. The title of his thesis was: *The Relation Between the Reading Competence of Alberta Ninth-Grade Pupils in Four Content Fields and Their Achievement in Those Fields*.

Report of the Division of Education Psychology

Introduction—The Division of Educational Psychology came into existence during the summer of 1950. Included in its scope are all the psychological courses offered by the Faculty of Education. These cover the fields of child psychology, psychology of adolescence, educational psychology, guidance, mental hygiene, psychology of the subject matter fields, psychology of exceptional children, clinical psychology, and tests and measurements. The Division includes in its responsibilities supervision of all courses in this field offered in the Calgary Branch of the University of Alberta as well as those offered in Edmonton.

Selection of Texts—The first official meeting of the Division of Educational Psychology concerned itself with the selection of suitable texts in Education 172 and Education 176, covering the fields of child and educational psychology for first-year students. Seven instructors, five in Edmonton and two in Calgary, offer these courses. The Division was able to select texts which were satisfactory to all of the instructors concerned.

Course Outlines—In the multiple instructor courses of Education 172 and Education 176 it was decided that uniformity in courses would be promoted by the preparation of course outlines. As a consequence of a meeting of instructors, an "Approach to Education 172 and Education 176" was prepared in which the major areas and points of emphasis of the courses were stated. On the basis of this a

course outline for the two courses was prepared, including student bibliography and suggested term work. Course outlines were also prepared in all courses offered during the winter session of 1950-51 and circulated to all members of the instructional staff of the faculty.

Evaluation in Multiple Instructor Courses—At the fall meeting of the Division the evaluative procedure in Education 172, Education 176, was outlined. As a result of this preliminary planning co-operatively prepared examinations for Christmas and April were planned. The procedures agreed upon worked satisfactorily at Christmas and should function efficiently for the final.

It was decided to adopt consolidated marking for the final examinations. As a result the two Calgary instructors will work with the five Edmonton instructors in evaluating the examination papers in Edmonton in April.

Education Clinic—Dean Smith assigned responsibility for the Education Clinic to the Division of Educational Psychology. The Chairman of the Division acted as director. He was assisted by the members of the Division in the Edmonton Branch of the faculty, who called on experts in other Divisions where their services seemed necessary. The most active workers in the Clinic were Dr. Rees, Dr. Clarke, and the director. A complete report on the work of the Education Clinic is forthcoming. It was felt that the Education Clinic rendered a useful service which could not otherwise have been available.

Science Exhibit—When planning for the Science Exhibit occurred, the Division of Educational Psychology decided to prepare a public demonstration entitled, "Speeding Your Child's Reading". This was offered on the two days of the Science Exhibit by two separate teams chosen from the staff of the Division. The demonstration seemed to receive a fair measure of public approval and was singled out by a commentator of the C.B.C. Edmonton Station, CBX, as the subject of a special fifteen minute broadcast.

Extension Series: "Teen-Agers and Their Problems"—At the request of the Department of Extension, the Division of Educational Psychology offered a course of ten extension lectures to parents on the subject of "Teen-Agers and Their Problems". In this series of lectures the following staff members participated: Dr. R. E. Rees, Miss M. S. Simpson, Dr. S. C. Clarke, Dr. J. W. Gilles, Mr. B. Y. Card, and Mr. G. M. Dunlop. This series seemed to meet with popular approval, in part due to the fact that at least half of each lecture period was devoted to discussion.

Research—In the field of research the members of the Division were active but did not direct their attention to the production of articles or publications. It must be pointed out, however, that many of them have either individually or collectively completed studies which are suitable for publication in psychological periodicals and journals. Leadership is being given in the direction of encouraging staff members to complete and publish the results of their studies. It is anticipated that there will be a great improvement in this area in 1952.

Report of Dr. A. L. Doucette, Director of the Calgary Branch

Registration

The total enrolment at the Calgary Branch rose to 268, an increase of five per cent over that of the 1949-50 session. This figure includes thirty-seven partial students, mainly teachers from Calgary city schools who take advantage of late

afternoon classes offered to regular students. Of the total enrolment this year, one hundred and sixty students registered in the special one-year programme; the academic quality of this group as represented by the number of matriculation subjects to their credit was the highest since the birth of the Faculty of Education in 1945. The enrolment by sex distribution was eighty-seven men and one hundred and eighty-one women.

Staff

One additional staff member was added to the Education Faculty in Calgary to offer instruction in Educational Administration and in Senior Science. This resulted in a more equitable load distribution on the part of two or three Education staff members.

The instructional staff now consists of four Faculty of Arts and Science instructors, ten Faculty of Education instructors, three part-time lecturers in Education, five members of the staff of the Institute of Technology and Art and the librarian. All instructors are well qualified in their respective fields.

Staff members counsel and assist students in the following activities: Practice Teaching, Guidance, Educational Club, Choral, Drama and Art Clubs, University Athletic Board, Medical Services.

Faculty council meetings are held monthly, immediately after the Education Faculty Council meetings in Edmonton. The business of the Edmonton Faculty Council meeting is thoroughly reviewed and matters of local concern are discussed.

Miss Olive M. Fisher retired from the staff in September 1950 and was granted an honorary LL.D. at the fall convocation in Edmonton in October 1950.

Staff members are in general interested in advancing their own educational qualifications. Of the fourteen regular instructors, including professors from the Faculty of Arts who offer courses in the B.Ed. programme, five have completed doctoral qualifications, four are pursuing their doctoral studies, and four others have completed at least two university degrees.

During the year the Branch suffered a tragic loss in the death of Professor Graham Millar of the Departments of Mathematics and Physics. Mr. Millar was a true friend, a cultured gentleman, and an intelligent scholar.

Practice Teaching

An innovation in the 1950-51 term was the extension of the Bachelor of Education practice teaching in the second year of the programme to nine full weeks.

The rural and urban demonstration work constitute a necessary component of the teacher-training programme. Nineteen rural schools of the Calgary Rural School Division No. 41 were utilized in connection with this programme. Faculty staff members travel to and from these rural schools to direct project work and to conduct student evaluation in practice teaching activities.

Student Affairs

While major emphasis is placed on the students' academic performance, it is necessary to include extra-curricular activities with a view to the development and maintaining of a university tone or atmosphere in student affairs.

In the fall of the year a Freshman week is held immediately prior to registration. During the course of the winter session groups of students travel to Edmonton

for inter-branch games and social events. Such activities are stimulating to the student body and assist in giving the students at the Calgary Branch a sense of belonging to the main University in Edmonton.

Based on the new constitution of the Calgary Committee on Student Affairs as approved by the Board of Governors, two meetings were held in Calgary just prior to the corresponding meetings in Edmonton. The president of the Calgary Students' Union reported on the Calgary student affairs at these Edmonton meetings.

The Work of the Assistant Provost, Mr. E. W. Buxton

The fact that many of the students attending the Calgary Branch are enrolled in the special one-year programme creates a problem of maintaining continuity in student government from year to year. Every member of the Student Council for the year 1950-51 was obtaining his first experience in student affairs at the university level. This difficulty, however, did not prevent the responsibilities of all officers from being capably and intelligently discharged. Mr. John Rhodes, President of the Students' Union, and Mr. Lorne Wiley, Student Treasurer, have merited special commendation for their unfailing attention to the many duties of their offices and for their efforts on behalf of the student body.

Two activities of the Council should prove beneficial to students attending the Calgary Branch in the future. The amendment to the Constitution which changed the Points Act to an Awards Act clarifies the method used in granting awards and makes the procedure conform more closely to that used in Edmonton.

The proposed revision of the Medical Services programme in Calgary has been submitted to the Medical Services Board in Edmonton for evaluation and possible submission to the Board of Governors.

Because of the efforts of the Disciplinary Committee, the infraction of University regulations was minimized, and the few problems that occurred were of a minor nature.

Extension work carried on by the staff

All staff members assist with such rural and urban extension work as radio talks, addressing teachers' institutes, conventions, and workshops, home and school association meetings, service clubs, and high school graduation ceremonies from Red Deer south to the American border. Certain staff members also assist with curriculum revision work and serve on curriculum committees of the Provincial Department of Education.

Professionalism

The Education Undergraduate Society is active at the Calgary Branch. Students participate in forums, in the Western Canada Student Conference, and listen to lectures and discussions on professional matters.

The Annual Closing Exercises

The Closing Exercises were held on April the sixth with President Stewart as guest speaker. For the first time since the inception of the Calgary Branch an academic procession was organized. This function, although not actually a graduation day, is a banner event in the lives of the students, and every effort is made to make it a serious, impressive, and colorful occasion. It is one means of trying to make the one-year students feel that they are members of the university organization.

Student Advisory Services—Calgary Branch

Frequent and direct liaison is maintained between the Director of Advisory Services in Edmonton and our appointed Supervisor of Advisory Services at the Calgary Branch. The liaison is both personal and through regular avenues of communication. Dr. Cook keeps the branch "briefed" on procedures and records. His personal visit to Calgary in April 1951 was extremely helpful.

University Forum—Calgary

The University Forum, the function of which parallels the Philosophical Society in Edmonton, serves the student body, staff, and Calgary public. During 1950-51 the theme of the lectures was "Research". The proposed series for 1951-52 aims to emphasize the educational needs of our Canadian society of today. University presidents from the four western Canadian provinces have been approached with a view to assisting at the series.

Administration liaison between Edmonton and Calgary

The Director of the Calgary Branch maintains direct contact with various administrative branches in Edmonton. He attends meetings of the General Curriculum Committee and the Junior High School Curriculum Committee of the Provincial Department of Education, the Board of Teacher Education and Certification, Education Faculty Council, Edmonton, General Faculty Council, and Senate meetings. These administrative contacts facilitate the task of directing the Calgary Branch, and at the same time provide essential information for the director and his staff.

Report of Dean R. M. Hardy of the Faculty of Engineering

The number of students in this faculty is 544, compared to 769 last year, and 960 for the peak registration of the post war period in 1947-48.

While the total registration is now only 57 per cent of the peak registration during the session 1947-48, it is about double the average registration in the 1930-40 period.

The employment opportunities for both graduating and undergraduate engineering students are exceptionally good; particularly in the Alberta area. The concern that has existed during the past two years that the excessively large numbers of young engineers graduating from the Canadian Universities could not be absorbed satisfactorily into the economy of the country has proved to be unwarranted. The demand for graduates in all branches of engineering this year considerably exceeds the supply in this area. Moreover if industrial activity continues at its present level for the next few years, there is every indication that the severe shortage of young engineering graduates will continue. It is particularly unfortunate that the wide opportunities for graduates in mining engineering are not generally recognized by young men entering the Engineering Faculty.

The joint study by the Department of Education and the General Faculty Council concerning University entrance requirements and co-ordination of high school and University courses has produced special problems in the curricula of the engineering courses. As a result a critical examination of the curricula of this Faculty has been initiated.

Instruction at the graduate level has continued in each of the four engineering departments.

The senior member of the staff in the Mining Engineering Department continues as supervisor of research on the Athabasca oil sands project of the Alberta Research Council. Work on an ore dressing problem was also continued in this department as part of a graduate student program.

In the Department of Electrical Engineering the final report dealing with the cost of generation of electrical power in Alberta was completed in co-operation with the Alberta Research Council and the staff of the Department of Political Economy. Research was continued on electrical methods of Purifying Saline Waters, and work on a High Frequency Measuring Device was also continued.

In the Department of Chemical Engineering research programs on the "Flow of Two-Phase Air-Water Systems in Vertical Pipes" and the "Flow of Non-Newtonian Fluids" were continued, the latter project being under National Research Council sponsorship. The following research projects were continued on fellowships: "The Catalytic Oxidation of Redwater Asphalt Base Stock" (Shell Oil fellow), "The Construction of an Electrical Model of a Petroleum Reservoir" (Imperial Oil fellow), and "Crude Oil Rheology and Pipeline Flow Problems" (Interprovincial Pipeline fellow). The new Utilization of Natural Gas project of the Alberta Research Council was continued under the supervision of the staff and using the facilities of this department.

Research work continued in the Civil Engineering Department on a number of projects. Two projects were initiated under the auspices of the Concrete Research Fund contributed to by the concrete industry, including contractors, products manufacturers and cement manufacturers. These were concerned with steam curing of concrete products and pre-stressing techniques. The project concerned with the failure of pavements at trolley bus stops and financed by the National Research Council was completed. The Prairie Rural Housing Committee program dealing with Rural Sanitary Facilities was also completed. The Highway Research Project, supervised from the department and using the facilities of the soil mechanics laboratory, was also continued. This project was again financed by contributions from the National and Alberta Research Councils, the Canadian Construction Association and the Prairie Roadbuilders Section of the C.C.A. Valuable co-operation was also again received from officials of the Provincial Department of Public Works and private contracting organizations in the road construction industry. A project entitled "Cutout Research" and dealing with the stress distribution around large openings in thin aircraft structure plates was also undertaken with financial support from the National Research Council. Work was also continued on the problem of stresses in ice sheets over bodies of water.

The Department of Chemical Engineering in co-operation with the petroleum industry and the Extension Department of the University continued to service the petroleum industry with short courses and advisory services in connection with the joint Canadian Association of Oilwell Drilling Contractors and University Supervisory Training program. Three ten-day schools were conducted, being respectively an "Oil Treating School", a "Mud School" and a "Gas Metering School".

Specialized technical service to industry in the Province was continued by all four engineering departments, with the major services being provided through the Civil Engineering Department in the fields of concrete and soil treating.

Relationships between industry in the Province and the Engineering Faculty have continued on a most satisfactory basis. It is gratifying to recording an increasing

interest on the part of industry in the support of the activities of the Faculty at the graduate level.

Report of Dean W. F. Bowker of the Faculty of Law

Enrolment

Noteworthy is the fact that 56 students will be graduated. The comparison with other years is interesting. From the first class in 1924 until world war II the largest class was 23. The number fell as the war proceeded. The figures since then are: 1945, 3; 1946, 8; 1947, 11; 1948, 17; 1949, 17; 1950, 36; 1951, 56. This year's class is the crest of the wave of ex-servicemen. Next year the number graduating will decline to about 40 and the year after to about 35. It will probably settle at around 30.

Employment of Graduates

A year's articleship after graduation is prerequisite to admission to the bar. It is a vital part of legal education.

The system requires: (1) that each graduand find an office in which to article; (2) that the student receive the widest experience during the year.

Obviously, the more students there are in relation to the number of good offices, the poorer the training. It is significant that this year's large class is having little trouble in finding good offices in which to article. Moreover, a substantial number of graduands from other provinces have come to Alberta to article in the last two or three years.

How can the province absorb so many more students in the past two years than ever before? Because of the unusual growth in the province. The city firms are expanding; new firms are being opened; governments, trust companies and oil companies want more young lawyers than ever before.

At the same time, it would not be wise to lower standards for the sake of meeting a temporary demand. Had the University and the Law Society lowered standards for veterans, many more would have been graduated by this time and admitted to the bar. Every other law school in western Canada has graduated many more students than has this faculty. The main explanation of this is that the minimum elapsed time between matriculation and admission to the bar was shorter in all of these provinces than here. As stated above, many of them have come to Alberta, and more plan to come.

The significant fact is that the bulk of the veterans have now been graduated without any reduction in the usual standards, and that their opportunities are good. The urgent need in the cities has largely been met, but there are still good opportunities in the smaller centres. It is to be hoped that by another year newly admitted members of the bar will go out to the small towns where the need is greatest.

Staff

With four full-time members on the staff it has been possible to eliminate double classes, and to attend to administrative matters which take more time with larger enrolment. Once again the thanks of the faculty are given to the sessional instructors who are all practising lawyers. Nearly all are young men who have given valuable assistance. Unfortunately this is the last year of teaching for L. Y. Cairns, K.C. For over twenty years he has taught Practice (and has given courses

in the School of Commerce as well). He is an excellent teacher and has continued for so long at the urging of the faculty and at personal sacrifice. His influence on many generations of students extends far beyond the subject matter of his courses.

Curriculum

Ever since the war study has been given to this question. In England, the United States and Canada, the subject is under re-examination. What are the aims? What changes should be made in methods of teaching? What courses should be dropped or added? Vigorous controversies centre on all these questions. It is hoped that by another year the study of this question will be complete.

Library

The law library has been greatly improved since the end of the war. The text books were very inadequate. Now there is at least one copy of nearly every standard text in the subjects taught. The number of sets of law reports has been increased three or four fold to meet the large enrolment. Next session the reading room will be in the new Rutherford Library. For the first time in the thirty year history of the school there will be supervision of the law reading room. Because of the physical arrangement, the students have had to look after the library themselves and have been on an "honour" system with respect to taking out books. They are to be commended for their care of the books.

Graduate Study

One student, John Parry, is completing two years at Oxford University under a Beaver Club Scholarship. Another, Crawford Ferguson, is completing his first year under a Rhodes Scholarship.

None is in graduate work in Canada or the United States. Since the war most of the better students have been veterans. Being older and usually married, they have not undertaken graduate work. Now that the students are younger it is hoped that more will engage in further study.

Research

All of the full-time members of the staff are in their first years of teaching. Thus the preparation of courses is a full-time task. On the other hand, all but one are engaged in graduate work at the moment. They are anxious to engage in research and to contribute articles to legal periodicals.

Law Society of Alberta

The faculty has always enjoyed the most cordial relations with the Law Society. For the past five years the Dean has been invited to address the annual meeting of the Society on matters of interest in legal education. Moreover the executive of the Law Society now invites the Dean to be present whenever legal education is under consideration at its meetings. The past two years have been difficult by reason of problems of admission from other provinces and certain criticism of professions generally. These problems appear to have been satisfactorily met.

Summary and Conclusion

The significant points are: (1) the large size of the graduating class; (2) the high calibre of the students and of their work and morale—55 of 141 were veterans; (3) the good opportunities for graduates; (4) the satisfactory status of

the teaching staff and continued valuable help from part-time instructors; and (5) the cordial relations with the Law Society.

Report of Dean J. W. Scott of the Faculty of Medicine

Teaching at both undergraduate and graduate levels has continued as the major activity of the Faculty of Medicine.

Demands for admission by veterans are now pretty well met and most applicants for admission to Medicine in 1950 were civilians without previous service in the armed forces. The number of applicants remained high and all departments have strained their facilities to accommodate as many students as possible. Fifty-four students were admitted to First Year Medicine in September 1950. Six students from the University of Saskatchewan were admitted to the third year.

The Faculty of Medicine sustained grievous loss in the deaths of Dr. T. H. Field, Honorary Instructor in Clinical Medicine, and Dr. W. N. Gourlay, Instructor in Clinical Surgery.

At the end of this session Dr. J. J. Ower retires as Professor of Pathology following a long association with the Faculty during which he served as Dean from 1945 to 1948. He will be succeeded by Dr. J. W. Macgregor.

The combined course leading to the degrees B.Sc., M.D., was abolished by the Faculty Council and with this the pre-medical class as a unit will disappear. Requirements for admission to the first year of Medicine were set at two full years of University work with full courses in Organic Chemistry, Inorganic Chemistry, Physics, and Zoology. It is felt that this change will assist in liberalizing the training of applicants and allow them two extra years in which to make their vocational decision. It is also hoped that the former misunderstanding and confusion caused by the term "pre-medical" will be eliminated.

The appointment of a number of well-trained young men to the staff of the preclinical and clinical departments has greatly increased the efficiency of teaching in the faculty.

Graduate training has been offered by both basic science and clinical departments. Twenty-one students worked toward the M.Sc. degree in four basic science departments. Twenty-four medical graduates were registered in a four-year training course leading to Certification or Fellowship examinations in some specialty. Ten such trainees have now completed their training and have returned to practise. Of these, seven are practising in Alberta and only one left Canada.

The annual Refresher Course will be presented again this year in May for the benefit of practising physicians. Last year the attendance at this course was 192.

Active programs of research have been carried on in all basic science departments and in four of the clinical departments. The list of publications indicates the number and variety of problems under investigation. Research has been supported by grants from the Medical Research Fund, the National Research Council, and the National Cancer Institute.

In March, 1951, the Faculty of Medicine was host to the Western Regional Group of the National Research Council during its annual meetings.

Report of Professor Helen E. Penhale, Director of the School of Nursing

During the past year the attention of the School of Nursing was directed toward the education of the professional nurse of the future. Admittedly, today's

practising nurse was educated in a different world—a world in which five years is as a generation in respect to social change. A few of the subsidiary issues about which this matter revolves are the relation of general to professional education and the amount of clinical experience necessary for learning to take place. The nurse is required not merely to concern herself with improving technical operations, but to know what relationship her profession should have to society.

Plans to implement this broader view were incorporated in the degree course. The course as proposed provides for an integration of the sciences and the humanities throughout the entire course. It is believed to be sound both professionally and academically to streamline the technical portion of the nursing course and require only four years rather than the usual five in order to qualify for the degree, Bachelor of Science in Nursing. After continued study on several unresolved problems, it is hoped that the new program can be offered in the fall of 1952.

The one-year post graduate courses were revised in order to eliminate certain duplications in subject matter and possible omission of content deemed essential in the light of present-day thinking. The subject-matter has been integrated and co-ordinated in a more logical sequence.

Keen interest continued in post graduate education. The Advanced Course in Practical Obstetrics was offered during the four-month period—September to January. The five students enrolled successfully completed the course and are now in district nursing positions with the Provincial Department of Public Health. This course, started in 1943, has been of great assistance to nurses working in the more rural areas throughout Alberta.

The Dominion-Provincial Professional Training Grant bursaries available to graduate nurses resulted in an increased enrolment in the one year diploma courses in Public Health Nursing and in Teaching-Supervision in Schools of Nursing. Thirty-nine graduate nurses registered for these courses—nineteen in Teaching-Supervision and the remainder in Public Health. This year marks the fifth year that the Teaching-Supervision course has been offered. Registration has increased each year—from ten students in 1946-47, to the present nineteen. These students have been placed in the eleven schools of Nursing in the province. This fact is of particular importance to the University because of its responsibility for the supervision of nursing education.

The W. K. Kellogg Foundation Fellowship program for Canadian University Schools of Nursing was offered to the School for the third year. One graduate is pursuing further study under this plan at the University of Chicago.

The members of the staff continue to take an active part in nursing activities throughout the province. Refresher courses on "Improving Nursing Care" were offered in Edmonton, Calgary and Lethbridge. A work shop on "In-Service Education" was conducted by Professor F. Kempf of Michigan State College, Lansing, Michigan. Home Nursing was again offered to Farm Young People.

The student enrollment continues to increase. In 1945 the total enrollment numbered one hundred and seventy-six students and in 1950, two hundred and fifty-eight. Two additional wings now under construction at the Nurses' Residence will materially strengthen the educational program for the students. A co-educational program directed by the Student-Faculty Co-operative Government is anticipated for the coming year.

During the five year period since the School of Nursing was reorganized considerable progress has been made. Much is yet to be accomplished if the School of Nursing is to maintain its position among the leading Schools of this continent.

Report of Dr. M. J. Huston, Director of the School of Pharmacy

Academic

In order to broaden the education of pharmacy students several innovations were introduced this year. A short course in first aid was included in the first year curriculum. Students in the third year, singly or in small groups, spent an afternoon (a) studying the function of a hospital pharmacy, (b) observing the operation of a drug wholesale house, and (c) accompanying a medical services representative.

Staff members continued advanced studies or carried on research work. Mr. B. E. Riedel was away during the year on leave of absence to undertake work towards the doctorate degree at the University of Western Ontario. Mr. J. R. Murray spent the summer months at the Ohio State University. Dr. M. J. Huston carried on research during the summer at the Kerckhoff Institute of Marine Biology.

Research

Two M.Sc. students carried on investigative work in the department. Their work was assisted by grants totalling \$1,750 from the Canadian Foundation for the Advancement of Pharmacy.

Some synthetic compounds were sent from the Department of Chemistry of the University of Saskatchewan to be tested for estrogenic activity.

Projects being investigated include the following: estimation of the water compartments of a gastropod mollusc; the action of cardiac glycosides on intestinal muscle; the action of depressant drugs on striated muscle; the application of paper chromatography to alkaloidal assay; tensiometric and capillary rise measurements of the effects of certain emulsifying agents; the use of solubilized oils in pharmacy; emulsified suppository bases; the effect of detergents on skin pH; incompatibilities of pyribenzamine; the use of the titrimeter in the assay of sulfonamides; development of a new method for recording the rat heart beat; investigation of the fluorescence of powdered vegetable drugs; the determination of solute spaces.

Extension

Practising pharmacists are more and more turning to the School for help and advice on specific and general problems. This has necessitated many interviews and much correspondence.

Four extension bulletins covering recent advances in pharmacy were prepared and distributed to the pharmacists of the province.

The School again organized a two day Refresher Course in conjunction with the annual meeting of the Alberta Pharmaceutical Association.

Report of Dean John Macdonald, Chairman of the School of Graduate Studies

Registration

During the academic year, 1950-51, 268 students were registered in the School of Graduate Studies. The distribution of students, according to degrees sought, has been as follows:

	Men	Women	Total
Master of Arts	37	10	47
Master of Science	52	4	56
Master of Science (Agr.)	33	1	34
Master of Science (Eng.)	22	.....	22
Master of Education	44	10	54
Bachelor of Divinity	12	1	13
Special Grads.	38	4	42
	<hr/> 238	<hr/> 30	<hr/> 268

Of these, 17 cancelled their registrations during the year. There is an over-all decrease of 4 compared with the number registered in 1949-50.

The distribution of candidates according to departments has been as follows:

Anatomy	1	History	14
Animal Science	3	Mathematics .....	.....
Bacteriology	5	Medicine	1
Biochemistry	7	Modern Languages	4
Botany .....	.....	Pharmacy	2
Chemistry	9	Phil. and Psych.	15
Dairying	3	Physics	4
Education	54	Physiology	1
English	2	Plant Science	18
Entomology	5	Political Economy	12
Engineering:		Soils	5
Chemical	7	Zoology	8
Civil	8	Specials	42
Electrical	6	B.D.	13
Mining	1		
Geology	18	Total.....	<hr/> 268

Progress During Session

There are no special developments to report in regard to the general work of the School during the session. It is worth noting, however, that this session the School has approved the applications of three candidates for the Ph.D. Two of these candidates will be in the field of Biochemistry, one working under Dr. Collier and the other under Dr. Tuba. The third will be in the Department of Plant Science working under Dr. Unrau. In addition, there has been an application from a candidate from Upsala, Sweden, who is interested in the special work carried on by the former Professor Fryer and now continued by Dr. Johnson. The School felt that this applicant seemed to be well fitted for a program of studies leading to the D.Sc. degree in accordance with our regulations. He is prepared to come to the Department of Plant Science in that capacity.

I should draw your attention to the fact, which has probably already been mentioned to you by Mr. Whidden, that fee arrangements will require to be made in connection with the Ph.D. candidates. In connection with fees, I may remind you that, as stated in the minutes of the School, the School felt that it was anomalous and undesirable to ask a second registration fee from students who were given postponement for the theses presentation until the fall. Certain departments have represented that it is very desirable that postponement to the fall should be freely given in any case where it is felt that quality of the thesis will be improved by this action.

Recommendations for Degrees

The number of students recommended for master's degrees are as follows: M.A., 10; M.Sc., 21; M.Sc.Agr., 13; M.Sc.Eng., 3; M.Ed., 3.

Report of Dr. J. W. Gilles, Director of the Summer Session

Registration and Attendance

The advance registration for the University of Alberta Summer Session of 1950 reached the total of 2,113. Cancellations were received from 66 students; 346 students registered but did not attend. As a result, only 1,701 students appeared for classes. This, however, represents an increase in attendance of 200 students. A summary of the attendance figures follows.

	Veterans			Civilians			Total
	Men	Women	Total	Men	Women	Total	
Education	178	9	187	468	876	1344	1531
Arts and Science	25	5	30	45	31	76	106
Commerce .....	.....	.....	.....	3	.....	3	3
Pharmacy	5	.....	5	1	.....	1	6
Engineering .....	.....	.....	.....	3	.....	3	3
House Ec. ....	.....	.....	.....	.....	3	3	3
Nursing .....	.....	.....	.....	.....	5	5	5
Auditors	1	3	4	4
Specials	2	2	4	4
<hr/>							
	208	14	222	523	920	1443	1665
Calgary	16	16	20	20	36
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	224	14	238	543	920	1463	1701

Percentages by Faculties

Education Students, 92.1 per cent; all other students, 7.9 per cent.

The number of students who registered but failed to appear reached the highest figure in recent years. In 1950, 346 registered but failed to attend. In 1949, 219 fell in this category. On the other hand cancellations of registration declined from 173 in 1949 to 66 in 1950. I believe that the increase in number of students who register but fail to attend results from commencing registration in November. It would seem that any extension of the period between registration and opening of the Summer Session has the result of increasing the number of students registering but failing to attend.

Instruction

The Summer Session staff was composed of 53 members of the University Staff, 14 instructors drawn from the Department of Education, 11 instructors drawn from the school systems and elsewhere in the province, and 14 visiting instructors. Of the visiting instructors, 4 were secured from the United States. The total number of instructors reached 92, 6 more than were appointed in 1949.

The visiting instructors included Mrs. Walter Gainer from Allston, Massachusetts; Dr. Stanley Clarke, from San Luis Obispo, California; Mr. Denis Goodale, from Regina; Mrs. Rae Johnson, from Oneonta, New York; Dr. D. E. Mahood from the Provincial Normal School, Moose Jaw; Miss Agnes Matthews, Principal, St. George's School, Montreal, Que.; Dr. W. J. McIntosh, Jarvis School for Boys, Toronto, Ontario; Mr. J. N. Medhurst, from Toronto, Ont.;

Mrs. Nita E. Murphy, from Vancouver, B.C.; Mr. Arthur Rezny, Assistant Superintendent of Schools, Royal Oak, Mich.; Miss Carlene Rose, University of British Columbia, Vancouver, B.C.; Dr. G. W. Snelgrove, University of Saskatchewan, Saskatoon, Sask.; Miss Audrey Taylor, McGill University, Montreal, Que.; and Mr. Russell West, Assistant Superintendent of Schools, Ann Arbor, Mich.

Miss Mabel Everett was compelled to withdraw from the Summer Session staff in the second week due to the serious illness of her mother. Mrs. Rae Johnson, of Oneonta, N.Y., was able, however, to take responsibility for the work which Miss Everett was intended to handle. Excellent reports were received concerning the work of all visiting instructors. I was particularly impressed by the work of Mrs. Rae Johnson and Mr. J. N. Medhurst. Some concern must be felt over the fact that certain courses have unreasonably heavy enrolments. This is particularly true in Education courses required for the degree. This resulted, for example, in an enrolment of 220 students in Education 476. Enrolments of over 100 occurred in several other courses.

Courses

Seventy-five full courses and fifteen half-courses were offered in Edmonton and Calgary branches of the Summer Session. Of the seventy-five full courses, twenty-three were laboratory courses, in which is included shop, drama, music, as well as the physical sciences. Sixty-eight full courses were offered in Edmonton and seven in Calgary.

The Problem of Student Preparation

For years it was found that one of the greatest weaknesses of the Summer Session program seemed to be the lack of adequate preparation by students for the courses in which they were registered. During the past two years a tentative list of courses has been published in the Alberta Teachers' Association magazine in November, and registration commenced at that time. The Summer Session Announcement was made available early in January. The net result was that this year approximately 1,500 students were registered by April 15. While early registration does not necessarily imply preparation, I would recommend that the procedures for facilitating early registration employed during the last two years be continued.

After three years of observation of our Summer Session I have reached the conclusion that the ideal solution of the problem of adequate attainment would be the lengthening of the Summer Session period and the removal of emphasis on pre-session study. Since the teachers, however, have only two months away from their instructional duties, it does not seem opportune to increase the length of the session materially. In 1950, in response to repeated complaints of certain instructors and students, it was decided to lengthen the Summer Session to the extent of placing the final examinations on the Monday and Tuesday following the completion of six weeks of instruction. Generally speaking, the reaction to this change has been negative, the students feeling that it cuts further into their short vacation period. I would recommend, therefore, that although I do not regard early registration and a six-week Summer Session as ideal, it does seem to be the best possible arrangement at the present time.

Reports of Provost, Adviser to Women Students, and Wardens

The Provost reports a pleasant, uneventful summer. The Adviser to Women Students gives particular emphasis in her report to a most important phase of her work, entertainment of visiting instructors. The Warden of Pembina Hall reports an extremely busy six weeks in which a great deal of energy was apparently displayed in regulating the life of the girls in residence and providing for special events for their entertainment. She recommends that a telephone be installed in the room assigned to the Warden of Athabasca Hall, and secondly, that on July 1 and on the day preceding the opening day of the Summer Session, a secretary remain on duty in the office of the Bursar to help solve problems relating to assignment of rooms. The Warden of Athabasca Hall reports an active program aimed at providing for the comfort and entertainment of girls in residence. The Warden of Assiniboia Hall raises several problems which merit consideration by the Administrative Committee. The regulation regarding proper dress in the dining room at formal meals in hot weather apparently aroused antagonism and the House committee expressed itself in favor of either enforcing the regulation strictly or abandoning it. The parking of cars in Summer Session caused certain difficulties but this problem seems to have been solved successfully by the Warden. The recommendations of the Warden of Assiniboia Hall are worthy of study. However, the majority of them can be implemented by vigorous action by the Warden and the House committee at the commencement of the next Summer Session.

Special Events Program

This year, the Special Events Program consisted of one address, four musical evenings, and a demonstration of folk and square dancing. An honorarium of \$25 was paid to Mr. Russell West who spoke on the topic, "Our Faith in Education". A similar honorarium was paid to Mr. Edgar Williams for an enjoyable violin recital, and to Miss Doreen Stanton and Miss Donna Gail Richards for their piano and song recital. Of these three, the piano and song recital proved most popular. The lecture recital of Mr. Arthur B. Crighton proved to be an interesting introduction to the organ and demonstration of its potentialities. The workshop demonstration of the dance directed by Miss Patricia Austin was highly popular. Miss Austin is to be commended for instituting weekly programs of recreational folk and square dancing. The recital of choral music with the combined music classes under the direction of Mr. Keith Bissell and Mr. Arthur B. Crighton was highly successful. The drama department, staffed by Professor R. H. G. Orchard, Mrs. Leona Paterson, and Mr. J. N. Medhurst, staged a number of demonstrations of drama suited to the level of the elementary and secondary school. In a succession of programs, a group of children were brought along from the status of beginners to a highly commendable level of performance. In this connection I feel it my duty again to refer to Mr. J. N. Medhurst, who seems to have brought to Alberta a new insight into the possibilities of children's theatre.

The Calgary Branch

The Calgary Branch was again under the direction of Dr. James Fowler. Seven courses in Industrial Arts were offered. I devoted a full day to the inspection of the Calgary classes and found a highly satisfactory type of work in progress.

Registration in the Calgary Branch consisted of 36 students as opposed to 41 in 1949 and 42 in 1948. It is noteworthy that 6 of the 36 students were from other provinces. The trend towards lower registration in Calgary is approaching the acute stage at which a decision must be made as to whether the Calgary Branch of the Summer Session will be continued or not. Certainly an organization which involves the overhead charges of a Director, a secretary and a storeman is unduly expensive for the number of students registered in shop courses.

The Problem of Civil Servants on the Summer Session Staff

For several years the Cabinet has protested against payment of honoraria to officials of the Department of Education working on the Summer Session staff. This year the Premier expressed the wish that no civil servant should receive an honorarium from an external source while drawing a salary from a government department, save when on vacation. The result of this was to permit instructors appointed for three-week periods to receive salaries and honoraria if they instructed during their vacation periods. In the case of instructors teaching a full course over a six-week period, it was necessary for them to take three weeks' leave of absence without salary during which their salaries had to be met by the University. The second three weeks of the six-week period was presumed to be vacation time during which they received salary from the government. In addition to their salaries being paid successively by the University and the government, they were allowed to receive the usual honoraria for teaching a course in the Summer Session. The effect of these changes has been felt in two ways. First, the University has had to pay honoraria and salaries for three weeks to civil servants teaching in the University Summer Session for a six-week period. This makes these instructors the most highly paid instructors in the Summer Session. Second, it has compelled all instructors appointed from the civil service to forego their vacations. I recommend, therefore, that the University report to the Premier that this method of appointing officials of the Department of Education to the Summer Session staff is unsatisfactory and should be discontinued. If it is not, future Directors of the Summer Session will be inclined to search elsewhere for instructors who can be employed at the usual honoraria. This would be unfortunate, since the Summer Session will suffer if the closest of relationships are not maintained with senior officials, high school superintendents and superintendents of rural divisions drawn from the staff of the Department of Education.

Student Affairs

Two meetings of the Students' Union were held during the Summer Session as is required by the Constitution. The usual social and athletic activities of the Union seem to have been carried through in a satisfactory manner. Liaison between the student governing bodies of the winter and summer session of the University was maintained by Mr. Cuthbertson, who represented the summer session Students' Union at several meetings of the Students' Union during the winter session. The services of the secretary-accountant of the Students' Union, Mr. Dinwoodie, have been made available to the summer Session. This has had the effect of rendering accounting more systematic and also increasing the degree of association between summer and winter session. Summer Session students particularly enjoyed conducted tours through the Students' Union Building and look forward to its use in future Summer Sessions.

The Executive of the Students' Union of the 1950 Summer Session recorded its recommendations to the University Administration in the form of several resolutions. Aside from resolutions which are related to academic courses, they are mainly concerned that the University administration should, where possible, consult the Students' Union Executive in advance, regarding changes affecting their well-being. For example, they felt that they should have been consulted regarding (a) extension of the length of the Summer Session by two teaching days; (b) the curtailment of hours of the cafeteria; (c) the shortening of the Students' Union general meetings from two hours to one hour.

I am following my usual practice of referring resolutions relating to courses to the proper authorities who may take such action as they see fit. It is to be remembered that certain resolutions are sponsored by the Students' Union after discussion; other represent small minority groups and deserve less consideration. The only resolutions which I regard as worthy of consideration by the Administrative Committee are those headed "Resolutions Submitted by Students' Council and Approved by Council".

With reference to the curtailment of the length of the Students' Union meetings, I must, in honesty, report that they can hardly hope to cover their business in one hour.

With reference to the resolution concerning the length of the Summer Session, it is quite understandable that the teachers view any encroachment on their already limited vacation with alarm. I have already suggested that in my opinion it is probably wise to adhere to the six-week Summer Session for the present time. I take full responsibility for recommending to the Administrative Committee last fall the extension of the examination period into the seventh week. While defensible on grounds of efficiency, it met with widespread criticism from students and from instructors.

With reference to the resolution relating to informing the student body regarding changes in policy affecting their welfare, it is extremely doubtful if this is possible or advisable.

Routine of the Summer Session

The "Get-Acquainted" Tea for the staff of the Summer Session and their wives was quite successful. The staff meeting held on the evening of the second day was well attended and served a useful purpose in acquainting instructors with the routine of the Summer Session. Each staff member was asked to make suggestions for the improvement of the instruction in his course and to report on instructional procedures which had proved valuable. Memoranda were sent out to all instructors when it seemed advantageous to do so. Generally, they proved useful since there was evidence that they were filed and referred to frequently.

Visiting instructors were invited to many private homes. In addition, Miss Simpson, as Warden of Pembina Hall, and Mr. Ryan, as Warden of Assiniboia Hall, entertained them at dinner in residence. Miss Simpson organized a motor tour to historic points about the city on one occasion, and on another, arranged for a tour of the oil fields.

A special Sunday service was held in Convocation Hall with the Reverend Dean D. J. C. Elson as clergyman. The attendance seems to justify continuing this feature of the Special Events Program of the Summer Session.

Report of the Librarian, Miss Marjorie Sherlock

Library activity continued at a high level during the past year, although the total circulation of 174,533 represents a decrease from the 1949-50 figure of 186,180. This decrease is partly attributable to the decline in student registration, but partly also to the fact that with less crowding in the reading rooms more open-shelf books could be used in the library without the need for charging them at the desk and taking them elsewhere for study, as formerly. It is significant that the borrowing of books from the stacks, and of journals, pamphlets, and other reference material remained at the same level as in the previous year.

Staff

The University Library during the past year had a full-time staff of 24 (of whom 14 were professionals) and 6 half-time assistants.

Miss Helen Farquharson, Chief Cataloguer, resigned January 1st, 1951, because of ill-health. She had been a member of the staff since 1945, and her departure is a great loss to the Library. Her qualifications were of the highest order and her energy and ability played an important part in the reorganization of the Cataloguing Department during the past five years.

Quarters

This was the Library's last year in its old quarters, and the problem of space for readers and especially for books remained acute. During the winter preliminary preparations were made for the move to the new library in May 1951. All Departmental reading rooms and collections will be housed in the Rutherford Library with the exception of the two Education Libraries, in Edmonton and Calgary.

Order Department

For seven months of the past year Miss Leversedge, Order Librarian, directed the work of the Cataloguing Department as well as her own department, during the illness and after the resignation of Miss Farquharson. As this period included the preliminary preparations and planning for the move to the Rutherford Library our special thanks are due to her for her very efficient administration of the two departments.

In spite of these added duties, the work of the Order Department was maintained at its usual level with a new buying guide set up, and considerable special buying done for the Rutherford Library. During the year the Department ordered and received 4,414 volumes, including 400 volumes received and acknowledged as gifts.

Cataloguing Department

The work of this Department has been carried on under difficulties owing to the illness of the Chief Cataloguer and much credit is due to Miss Russell and Mr. Shipley as well as to the members of the clerical staff for the capable manner in which they assumed extra responsibilities and maintained the level of work.

Considerable work was done in preparation for the move to the new library. New card catalogues and shelf lists were made for the Law Library; and for the chemistry, engineering and agriculture collections, to be shelved in the Applied Science Reading Room. Book cards were typed for all the medical, dental, nursing and pharmacy books which will be brought together in the new Medical Reading Room.

During the year the Department accessioned 5,965 volumes; catalogued 7,546 volumes (including 521 bound journals); lettered 6,581 volumes; withdrew 100 worn or out-of-date volumes; and typed 31,947 cards.

Reference, Periodicals and Binding

This department is responsible for reference service to students and faculty, for periodicals, pamphlets and government documents, and for the binding of books and journals for the entire Library. During the year, 1,148 current journal subscriptions were placed (an increase of 65 over the preceding year); 1,874 journals and books were bound or rebound. The Interlibrary loan service was maintained at the same level as last year with 125 items borrowed from other institutions and 255 items loaned to other libraries. Forty-six microfilms were purchased for staff members engaged in research. The number of theses by our own graduate students added to our collection during the year was 71.

Circulation

Although the total circulation statistics of the Main Library were slightly down from those of the previous year, the work of the Circulation Department has not decreased appreciably, since the greater demand for books, journals and other special materials from the stacks has offset the decreased use of Reserve books. This tendency was noted last year and indicates that the students are continuing to do more independent reading as opposed to prescribed reading for their courses.

During the year the overnight circulation from the Main Library was 63,520 as compared with 67,096 for 1949-50. This includes: books and journals from the stacks, 19,364; books from the Reserve shelves, 37,349; "special" pamphlets, journals, etc., 5,666 as compared with 3,176 during the previous year; loans to extramural students, 1,141.

Branch Libraries

Education Library (Edmonton)—During the year, the Education Librarian, with three full-time assistants, circulated 59,159 books and journals. Of this number 18,053 were circulated during the six weeks of the Summer Session, and 380 were mailed to Extramural students.

In October the Education Librarian gave five talks to Freshmen, illustrated with slides, on the use of reference books and the card catalogue. The result was a noticeable improvement in student understanding and use of the library.

Current subscriptions to journals number 60, of which half are bound annually. New equipment included a 12-drawer filing cabinet for the picture collection and a 15-drawer extension to the card catalogue.

Education Library (Calgary)—This library serves the Faculty of Education at Calgary and contains reference books, texts, and general background reading for both Education and first year Arts courses.

This has been the busiest year in the history of this branch library. The Librarian in charge, with one assistant, circulated a total of 17,501 books and journals and 2,210 items of pamphlet and picture material, as compared with 12,570 books and journals and 810 pamphlets and pictures in 1949-50. Student attendance in the library was 24,317 as compared with 19,952 the previous year. Since this is an open-shelf library, circulation figures fail to indicate the actual use made of the books within the library. As formerly, instruction in library methods and the use of the indexes and other reference material was given to all students.

New equipment in this library included a microfilm reader for the use of members of the teaching staff. They are at a disadvantage in pursuing their own research, by reason of their distance from the Main Library. It is hoped to offset this by use of microfilm and interlibrary loans.

Medical Library—This year again there has been a slight decrease in the circulation of Reserve books for overnight use, while the use of books from the stacks and of bound and unbound journals has increased. Evening use of the library has declined, but the library has been used more during day-time hours.

Total circulation for the year was 19,313 as compared with 19,370 in 1949-50. The figures includes: overnight circulation, 11,004; Reserve books, used during the day, 2,662; current journals circulated to staff members, 2,103; items loaned to city and rural doctors, 3,544. It is to be noted that this last item shows a marked increase—loans to city doctors having increased by 8 per cent, and to rural doctors by 84 per cent.

Current journal subscriptions to the Library number 268. We have continued to purchase back issues of various journals to complete our files. On interlibrary loan 34 items were borrowed, and 55 loaned to other institutions. The Medical Librarian continued to give instruction in the use of the library to Medical, Dental, Pharmacy and Household Economics students.

Agriculture Library—Circulation from this Reading Room for overnight use was 9,596 and attendance was 7,977 readers. These figures, however, give no indication of the increased and improved service provided by the qualified librarian in charge. The completion of the card catalogue and pamphlet file, the arranging and indexing of government bulletins and reports, and the availability of trained reference service were all matters of satisfaction to students and faculty members alike.

The *Nursing and Chemistry Reading Rooms*, each seating 20, were used to capacity. No record of use is kept in the former, but in the latter the number of readers was 5,978; and the overnight circulation approximately 4,000.

The *Law Library* continued to receive extremely heavy use. With 140 students registered in Law, working conditions in the two reading rooms have been crowded and difficult. Only forbearance and co-operation on the part of the students have made it possible to maintain service. They look forward to the fine facilities of the new library with relief and anticipation.

Stock of Books

During the year 5,965 volumes were added to the collection, and 100 volumes withdrawn, giving us a total of 112,438 accessioned volumes in the Main Library. In addition there are 14,000 accessioned volumes in the Education Library (Calgary) and some 10,000 as yet unaccessioned volumes in the Education Library (Edmonton), making a total book stock of approximately 136,438 volumes at March 31, 1951. There is in addition a large quantity of material (books, journals, documents, pamphlets) received as gifts during the last ten years, which because of lack of space we were unable to accession or catalogue. This has been in storage in various parts of the campus, and will be added to the collection after the move to the Rutherford Library.

Radio Talks

During the winter of 1950-51, 15 book talks were given by members of the University Library staff in the series "Books at Random" presented over CKUA in co-operation with the Extension Library. This was the sixth season for this series.

Report of the Provost, Professor H. T. Sparby

Student government at the University of Alberta has been well sustained during the past year. Not only have student activities been capably managed, but relationships between student officers and the University administration have been cordial and co-operative. This happy state of affairs was due in no small measure to the very able leadership provided by Mr. Michael O'Byrne, president of the Students' Union. Mr. O'Byrne's contributions to student life were recently given tangible recognition when he was awarded the J. D. O. Mothersill Memorial Scholarship for 1951. This is an award made annually "to a student selected for outstanding contribution to student life in the University especially through good citizenship and active support of student government".

This has been the first year of operation for the new Students' Union Building. The house committee which was set up to administer and supervise the building has discharged its responsibilities ably and well. Under the leadership of its chairman, Mr. Jack Fair, the committee drew up early in the year a set of regulations to govern the use of the building, and administered these regulations both intelligently and consistently during the remainder of the year. All the facilities provided by the building, offices, conference rooms, lounges and the games room, have served a wide range of student social and business needs throughout the year, and there are indications that the building will be put to even greater use in succeeding years.

At the fall meeting of the Committee on Student Affairs a report on the disciplinary responsibilities of the University administration and the Students' Union was presented by a joint faculty-student subcommittee which had been set up to study this question. Among the recommendations of the subcommittee the following were, perhaps, the most significant: (1) The Students' Union is concerned with all matters of discipline but it may hand over to the University administration any particular issue with which it would prefer not to deal. (2) It is always open to the University administration to take its own action in any matter which, in its view, has not been properly or adequately dealt with by the Students' Union. (3) The Students' Union should be given the first chance to deal with any disciplinary issue that may arise. Since these recommendations were approved by the Committee on Student Affairs, they might be looked upon as a general statement of University policy concerning student discipline. The willingness of the Students' Union to assume some responsibility for disciplining its members was confirmed later in the year when a group of eighteen men students were brought before the students' disciplinary committee and fined for creating a disturbance around the women's residences.

Mr. A. A. Ryan, Miss M. S. Simpson and Dr. M. H. Scargill, wardens of Assiniboia, Pembina and Athabasca Halls, report that students in residence have had a successful and pleasant year, with only a minimum of disturbance and disorder. One of the wardens reports that "students have expressed themselves as better satisfied over the course of the year with the dining room than in any previous year since the war". The men's and women's house committees, headed by Mr. K. Robin and Miss S. Moore, have not only assumed their full share of

the onerous task of maintaining order, but have also handled efficiently the house dances and other functions planned for the recreation of residence students. There is little doubt that the wardens' policy of treating the students as mature enough to handle their own discipline is a major factor in winning their good will and co-operation.

Miss Simpson, in her capacity as Dean of Women, continues to render a distinctive and invaluable service to the University. In assisting women students to solve their personal problems, in offering expert advice to student executives planning social functions, and in many other ways, she makes an extremely worthwhile contribution to student life on the campus. All this, of course, does much to promote good relations between the student body and the University. Miss Simpson reports that the opening of the Wauneita lounge in the Students' Union Building has stimulated greatly the activity of the Wauneita Society to which all University women belong. Once each month during the past year a different group within the society assumed responsibility for planning and directing some function of special interest to women students. Miss Simpson also reports that the mixed lounge in the Students' Union Building has proved ideal for club dances.

Much of the detailed work involved in administering the regulations of the Committee on Scholastic Standing is done in the Provost's office. Only students whose scholastic records are satisfactory are permitted to participate in University activities which are open to the general public. Participation in intramural activities is not regulated in this way. During 1950-51, the Provost reviewed the individual scholastic records of members of 21 student organizations, including athletic teams of all kinds, the University Mixed Chorus, the Drama Society, the McGoun debating team, and others. Among the 367 individuals whose records were reviewed, only 18 were found to be ineligible.

The number of fraternities on the campus remains the same, eight men's and four women's. The over-all administration of these organizations is in the hands of the University Committee on Fraternities and Residential Clubs, although much of the detail is handled by the Inter-Fraternity Council and the Pan-Hellenic Association. These latter are organizations set up by the fraternities themselves. Each of the men's fraternities elects two representatives who form the Inter-Fraternity Council and each of the women's sororities elects two representatives who form the Pan-Hellenic Association. A commendable development in fraternity affairs on this campus during recent years has been the increasing responsibility assumed by these two organizations for regulating the activities of the individual fraternities. The Provost and the Dean of Women are in close touch with the work of the Inter-Fraternity Council and the Pan-Hellenic Association, frequently attending their meetings in an advisory capacity.

Report of the Director of Student Advisory Services, Dr. A. J. Cook

The department came into being on September 1, 1950, with the Adviser to Student Veterans, Dr. A. J. Cook, assuming the position as Director.

Considerable time has been spent during the past session initiating policy, in line with the recommendations of the report of the Special Committee as approved by General Faculty Council.

A counselling service is personal. It is only useful if it assists with the personal growth of the student; more particularly with developing the sense of confidence, initiative and responsibility.

The Prospective University Student

Heretofore the contact of the University with prospective students has mainly been focussed in the registration proceedings in September. The Schools too have had little direct contact with the University, except by way of calendars. Their job was to prepare the student for matriculation examinations.

Steps are being taken to draw the Schools and the University closer together, in the interest of the prospective university student:

1. A new bulletin "Information for the Prospective University Student" has been written to enable the student to find the answers to his questions in straightforward terms. Distribution is mainly through the Schools.

2. The student is being encouraged to complete his application for admission to the University before leaving school. More adequate information is being obtained about the student, with a view to assisting him in his choice of course, etc.

3. The Director, with the cordial support of the Guidance Branch of the Department of Education, is visiting Provincial High Schools in a more systematic way than has hitherto been possible.

4. Parallel efforts are being made, using press and radio, to reach prospective students who are no longer in school.

Counselling the Undergraduates

It is a mistake to assume that the only students who seek counsel are those in difficulty with their studies. Often the student is uncertain about his course. He has completed two years pre-law successfully. Should he enter Law? etc.

The Director aims to take a personal interest in the progress and development of the able student. The First Year Committee has arranged that in future the records of all scholarship students will be specially observed.

Students in Academic Difficulty

Initial steps have been taken to work out procedures with the various faculties to ensure that the student in academic difficulty receives attention at the earliest moment. The Director was completely occupied from January to mid-March with such students.

Progress from One Year to Another

The University insists that students must complete the subjects in a given year satisfactorily before proceeding with the next year of the course.

New policy has been devised and approved which directs all students whose progress is unsatisfactory to seek re-counselling. This task will be undertaken during the summer months.

Individual Differences

A counselling service, to be effective, must be equipped with means of assessing individual differences. As public education develops, the inefficiency and wastage, which is considerable at the moment, can be reduced through the wise use of such means.

Some Faculties have begun to use such devices. Plans are being made to make their use more coherent.

Student Services

(a) *Housing.* The Director acted as adviser to the student committee in charge of the housing of married veterans during the past session.

The bureau concerned with the housing of non-resident students has been taken over from the Students' Union at the request of the Students' Council. It will continue to operate under the name Students' Housing Service.

(b) *Placement.* The placement officer (N.E.S.) and the Director work in close co-operation. The need for the development of a student personnel record is under study.

(c) *Health.* The infirmary notices keep the Director informed of student illness. Infirmary visitation, usually once a week, has been possible. Where health has been a factor in a given situation, the Student Medical Services have been most helpful.

(d) *Student Veterans.* The Director has continued in his role as Adviser to Veterans to maintain liaison with the Department of Veteran Affairs. A few figures of general interest are appended.

Research

A healthy university department must combine research with teaching. Counselling is teaching. To be effective it must be based on a continuous appraisal of local data, upon the research of others, and upon the research of members of the counselling staff. This is a statement of aim, at present. But the aim should not be lost sight of.

Conclusion

A student advisory service must always keep the entire University in view. Liaison with other departments, with faculties, with student officials, and with the administration must be constantly maintained. The Committee on Student Advisory Services which assists the Director with the Development of policy has been of great assistance this year. One cannot close this report without expressing real appreciation for the forbearance and helpfulness of members of the Committee in particular, and of the Administration as a whole.

Appendix

The following figures concerning veterans on allowances are taken from the minutes of the meeting of the Canadian Advisory Committee on University Training for Veterans, Feb. 1951.

At the University of Alberta 974 veterans wrote finals in May, 1950. Of these 94% either graduated or entered upon the next session without condition. Another 3% proceeded with one condition.

There were 481 student veterans attending the University in 1950-51. Of these 42 were doing graduate work.

Throughout Canada, the total university enrolment was 61,600 in 1950-51. Of these 7,900 were veterans, and about 4,000 expected to graduate this year.

In all, Canadian colleges and universities will have graduated about 40,000 veterans. It should be noted that without these graduates the national defence program would have been seriously hampered.

Report of the Chairman of the Committee on Physical Education, Dr. P. S. Warren

The Department of Physical Education reports a strenuous year which covers work on the service program for first year students, intramural sports program for senior students and University athletic clubs for all students.

Service Program

The service program for first year students covered a registration of 392 men and 133 women. An increase in this number is not expected in the future.

Intramural Program

The activities of the intramural program included eleven different sports which showed a registration of 1,482 men and 240 women. This was a slight increase from last year and more sports would have been included if there had been more room available. This number cannot be increased without greater facilities. This program is handled entirely by the Department of Physical Education.

Extramural Athletics

Extramural athletics are handled by the University Athletic Board and provide inter-university competition. Twelve different sports are open to competition. A large percentage of the coaching of the University teams falls on the shoulders of the members of the Department of Physical Education. It is the wish of the department that all coaching should be done by members of the staff, but this cannot be arranged as yet.

The work of the University Athletic Board, in arranging inter-university competition and otherwise managing or advising the handling of the moneys obtained from students' athletic fees, is more and more falling on the shoulders of the members of the Department of Physical Education. The average student members of the Board rarely have the necessary ability to handle these matters. Election of the student members of the Board is not usually based on their administrative ability. Student members appear to be getting younger and less capable in recent years. Arrangements for inter-university competition by University Athletic Boards is done practically altogether by members of the Physical Education departments.

Bachelor of Education in Physical Education

The degree of Bachelor of Education in Physical Education was introduced for the first time during the 1950-51 session. The first two years of the four-year course were offered during the current session, with the third and fourth years to be added the next two years.

Registrations for this course were as follows:

	Men	Women
1st year	12	6
2nd year	8	5

It is anticipated that the average class for the next several years will total twenty-four students with a ratio of five to three in favor of male students.

Fifteen students now majoring in Physical Education have been placed in recreational positions for the summer. These jobs consist of directors of recreation in parks, managers of swimming pools, life guards and playground supervisors.

Staff

Within the past year Mr. Van Vliet completed the Doctor of Education degree at the University of California, Los Angeles. Mr. Eriksson will have completed all the course requirements for the Doctor's Degree by September of 1951 and will begin writing his dissertation. Mr. McLachlin will continue work towards the Master's Degree at the University of Washington during the 1951 Summer Session.

The new curriculum for physical education, grades one to six, for the Province of Alberta will be published in May 1951. Mr. Van Vliet chaired the committee which completed this new program of study, and Mr. Eriksson, Mr. Smith and Miss Austin served as members of the committee. The Provincial Department of Education has recently appointed Mr. Van Vliet chairman of the committee to rewrite the physical education curriculum for grades seven to nine.

It is of interest to note that Miss Elaine Fildes has been appointed one of three leaders to accompany a group of fifty girls touring England, Scotland and Wales under the auspices of Mr. Garfield Weston and through the co-operation of The Canadian Education Association. Miss Austin will leave Canada July 13th and return August 21st.

Report of the Director of Student Medical Services, Dr. J. W. Scott

The session 1950-51 was a normal one so far as student illness was concerned. No major epidemics of a serious nature created any problem. We had a minor epidemic of influenza early in the new year. However, it did not create any severe degree of disability among the student population.

The activities of the Student Medical Services centered largely around the University Infirmary. The work here is largely of an out-patient nature and during the academic year there were 3,773 consultations at the Infirmary.

Dr. J. F. Elliott, with the assistance of Dr. M. M. Cantor and Dr. M. M. Hutton, has carried out the professional medical work at the Infirmary very efficiently. The nursing activities have been carried out under the efficient supervision of Miss A. Revell.

Freshmen examinations were carried out on all new students and X-rays of their chests were done. In addition Dr. J. F. Elliott has carried out a program of immunization with B.C.G. against tuberculosis among medical students and B.Sc. nurses. This, we hope, will decrease the rather alarming incidence of tuberculosis in these two groups.

The need for expansion at the Infirmary, particularly with regard to waiting room space, is an urgent problem which we hope will be solved in the near future.

Report of the Radio Secretary, Miss Margery W. MacKenzie

The University of Alberta has continued to utilize approximately the same amount of broadcast time over CKUA this year as in the past several years. Of the three hours a day, five days a week, of broadcast time presently allotted to it, one hour a day, a noon music hour, has been left for the present in the hands of the CKUA staff. Of the other two hours a day, one hour in the early evening has been devoted to good music. The other hour has included programs dealing with world affairs, science, literature, household economics, agriculture, educational research, adult education, drama, music, and children's entertainment. All but three of these have been presented in the early evening.

During the University term members of the University of Alberta faculty have assumed responsibility for the broadcast of ten regular program series, involving 190 programs of 15 or 30 minutes duration and totalling more than 50 hours of broadcasting. In addition to these, two series, the Music Hour, with five hour-long broadcasts a week, and the Alberta Farm and Home Forum, with three 15-minute broadcasts a week, continue throughout the entire twelve months of the year. These two programs constitute an additional 300 hours of broadcasting in the year.

The broadcasting of the University programs has been from the campus studios. Operation of controls and announcing for the evening programs has been handled during the University term by three students under the direction of the Radio Secretary. Daytime programs have been handled by the Radio Secretary and her assistant in Radio Service.

As a convenience to broadcasters, 145 programs were transcribed this year in the University studios, and were presented as recorded programs. Approximately 75 transcribed talks and discussions, after presentation over CKUA, were forwarded to Radio Station CFYT in Dawson, Y.T., for rebroadcast. These transcriptions, forwarded at the request of the Station, were circulated among several other 100-watt stations in the far north.

University programs were publicized this year, for the second successive year, by means of printed program schedules, "The University of Alberta on the Air". Five of these were distributed to cover the winter programs and three to cover the summer programs. Obtainable on request, these program guides have been requested by listeners in all parts of Alberta as well as in western Saskatchewan and north-eastern British Columbia. Two thousand copies of each program schedule have been distributed.

Following are the program series presented by the University of Alberta during the 1950-51 year. Except where otherwise stated the programs were of 15-minute duration.

Alberta Farm and Home Forum

Conveners: E. B. Swindlehurt, S. O. Hillerud. 150 programs.

Presented jointly by the Provincial Department of Agriculture and the University of Alberta, these forums are broadcast three times a week, throughout the entire year.

Behind the Headlines

Convener: G. Samuel. 22 programs.

Members of the University faculty contributed talks to this series of programs dealing with current national and international problems.

Books at Random

Convener: F. Macleod. 22 programs.

For these programs members of the staffs of the University Library and the University Extension Library reviewed books of a widely varied nature, obtainable by out-of-town borrowers from the University Extension Library.

The Chimney Corner

Convener: J. T. Jones. 22 programs.

Comprising selected readings from good books, this series was presented by

faculty members of the Department of English with the assistance of several outside readers.

Curtain Going Up

Convener: M. W. MacKenzie. 12 programs.

Recordings of scenes from plays of Shakespeare as performed by notable actors made up the majority of these programs.

Faculty of Education Series

Convener: B. E. Walker. 22 programs.

Talks on various educational problems as well as a series dealing with famous educators were included.

Music Hour

Convener: M. W. MacKenzie. 260 (1 hour) programs.

Presented from 7 to 8 in the evening, Monday through Friday throughout the entire year, these programs feature recorded chamber music, choral and solo instrumental music, opera and symphony on the first four programs of the week. The Friday evening program takes the form of a Listeners' Request Concert.

Western Board of Music

Convener: A. Crighton. 9 (½ hour) programs.

Presented by nine Edmonton musicians and teachers, these programs illustrated music from the piano, violin and 'cello syllabus of the Western Board of Music.

Why Stop Learning?

Convener: D. D. Campbell. 22 programs.

This series outlined the work done by the University's Department of Extension. It included two panel discussions, one dealing with community art in Alberta, and the other with the University Studio Theatre.

Wonder Box

Convener: M. A. Caldwell. 22 programs.

Radio adaptations of fairy tales presented by students of the Faculty of Education under faculty direction interspersed with stories for children read by faculty members made up this series.

World of Science

Convener: D. B. Scott. 9 programs.

These programs offered glimpses into many of the fields of scientific endeavor with which the University is concerned.

Your Home and You

Convener: M. Patrick. 22 programs.

Dealing with many problems facing the home-maker, this series presented by the Department of Household Economics furnished women throughout Northern and Central Alberta with much valuable information.

Canadian Federation of Artists Series

Convener: H. G. Glyde. 3 (½ hour) programs.

With the co-operation of the Department of Extension the convener arranged this special series of three panel discussions dealing with landscape painting,

ceramics and silk screen reproduction. They were presented by Edmonton members of the Canadian Federation of Artists.

Student Programs

Through its own initiative and with the assistance of the staffs of Radio Service and CKUA, the Student Radio Society has continued to provide training and experience in the various radio techniques. Throughout the University term all Thursday evening programs broadcast over CKUA, with the exception of the Music Hour and the various news bulletins, have been arranged and presented by members of the Radio Society. The privilege granted to the students of operating controls and producing programs from both the campus studios and the studios of CKUA afforded them invaluable training. Program series included: Green and Gold Sports, Piece of Mind, On Wings of Song, Varsity Varieties, Champs—or Chumps? and Critical Comment.

Report of the Secretary, Western Board of Music in Alberta, Professor R. S. Eaton

The activities of the Western Board of Music continued to expand during the above period, reflecting the steady growth which has been experienced in the past few years. It is interesting to note the increase in numbers of candidates sitting for the Diploma and other senior examinations.

Examination Statistics

1. *Candidatess*

	Practical	Theoretical	Total
February, 1951	75	206	281
*May, 1951		291	291
*June, 1951	674	.....	674
	<hr/> 749	<hr/> 497	<hr/> 1246

*Incomplete totals, compiled April 18, 1951.

2. *Centres*

(a) *Practical*

February, 1951—Edmonton, Calgary, Sundre, Innisfail, Pincher Creek.

June, 1951—as of April 18, 22 centres including Bonnyville, Calgary, Castor, Drumheller, Coleman, Edmonton, Falher, Fort Kent, Girouxville, Glendon, Grande Prairie, Innisfail, Lacombe, Lethbridge, McLennan, Mannville, Peace River, Pincher Creek, Red Deer, Rycroft, St. Paul, Spirit River.

(b) *Theoretical*

February, 1951—29 centres throughout the province.

May, 1951—36 centres throughout the province.

3. *Examiners*—Mr. Burton Kurth and Mr. Glenn Nelson, Vancouver; Mr. John Waterhouse, Winnipeg; Mrs. Dorothy Swetnam Hare and Mr. Leonard Leacock, Calgary; Mrs. Beulah Doney, Mr. E. A. Moore, Mr. A. B. Crighton and Mr. R. S. Eaton, Edmonton.

4. *Diplomas Granted*

Fall Convocation, 1950—Licentiate: Catherine Morrison, Stettler, Monica Engle, Calgary, Geraldine Mason, Edmonton, Pianoforte; Ruth Gillis, Edmonton, Singing.

Associate: Donna Diaper, Calgary, Mary Vaughan, Faust, Violin; Barbara Draper, Calgary, Violoncello; Donna Parker, Rosebud, Rosemary Holsworth, Benalto, Levis Brodeur, Edmonton, Allan Boomer, Edmonton, Zonia Thachuk, Edmonton, Pianoforte.

Broadcasts—Nine programmes illustrating pieces from the Western Board syllabus were presented over Radio Station CKUA. A discussion of the Associate Diploma and of examination problems was included in two of the broadcasts. We are again most grateful to the Edmonton teachers who prepared and took part in these programmes.

Recitals—Successful presentations of awards at regional recitals were held during October and November in six centres: Glendon, Peace River, Red Deer, Lethbridge, Calgary, and Edmonton. At the expense of the Western Board, several young artists from Calgary and Edmonton visited these centres to take part in the programmes as guest artists. They contributed much to the success of the recitals, and themselves received valuable experience in giving public performances.

Scholarships, Bursaries, Prizes—More than \$4,500 was awarded in the form of scholarships, bursaries, and prizes to outstanding candidates. The Western Board wishes to express its appreciation to the welfare organizations, service groups, corporations, business men and private individuals who continue to make these awards possible.

A significant contribution to music in the province was the granting, for the third consecutive year, of ten bursaries of \$100 each by the Government of Alberta.

The Gold Medal offered by the Board of Governors to the candidate receiving the highest standing in completing the final examination of the A.Mus. (Alberta) was awarded to Miss Barbara Draper of Ca'gary. Twenty-nine silver medals were presented.

Advisory Service—An ever-increasing amount of time is being devoted to assisting teachers, especially those in rural areas, with various examination problems. We are pleased to note that more and more teachers are turning to the University for assistance in these matters.

Report of the Acting Commanding Officer of the Alberta Contingent of the Canadian Officers' Training Corps, Lt.-Col. H. J. Bishop

The officers of the Contingent for the academic year were:

Commanding Officer—Lt. Col. D. M. Healy, MBE (on leave of absence).

Acting Commanding Officer—Lt. Col. H. J. Bishop.

Contingent Officers—Capt. C. W. Reed, Capt. J. P. Jorgensen.

Resident Staff Officer—Major J. E. Pincock.

Eighty-eight Officer Cadets were on strength of the Contingent at the beginning of the year; of these fifty-seven continued their theoretical training, the remainder were struck off strength for the following reasons:

Seven were commissioned as Second Lieutenants Canadian Army (Active Force); nine qualified and were appointed to the rank of Lieutenant in the Canadian Army (Reserve Force); fourteen qualified and were appointed to the rank of Lieutenant in the Canadian Army (Supplementary Reserve); one failed Practical Phase training.

At the end of this academic year, the number of Officer Cadets qualified for commissions but not returning to Corps Schools for further training were five, qualified in the rank of Lieutenant.

Therefore, of the fifty-seven members of the Contingent, fifty-two will again attend summer camps for further training.

In April, forty-four new members were taken on strength and assigned to various Corps in the Army for training. In all then, ninety-six Officer Cadets of the Contingent will be undergoing practical phase training during the summer of 1951.

In September, 1950, the Commanding Officer, Lt. Col. D. M. Healy, MBE, was granted a year's leave of absence and Major H. J. Bishop was appointed Acting Commanding Officer and promoted to the rank of Lieutenant Colonel.

Capt. J. K. Heath, NC, proceeded on Active Service with the 2nd Field Regiment, RCHA, in the Canadian Army (Special Force) and in October, 1950, he was replaced by Capt. G. W. Reed of the Faculty of Law.

The Adjutant of the Contingent, Lt. J. P. Jorgensen, was promoted to the rank of Captain in October, 1950.

During the theoretical phase of training this year lectures were given to the third year Officer Cadets by Faculty members of the University as follows: Military History, Dr. D. E. Smith; Military Geography, Dr. P. S. Warren; Prof. L. H. Nichols; Dr. R. E. Folinsbee, and Prof. L. E. Gads.

This year the Officer Cadets of the Contingent together with the Flight Cadets of the Reserve University Flight RCAF made full use of their well appointed Lounge in the University Drill Hall. Several informal social functions took place in this Lounge, which were well attended and enjoyed by the members and their guests of both Service units of the University.

Report of the Commanding Officer of the University Naval Training Division, Lieut. R. E. Phillips

Early in April of 1950, thirty-nine Cadets were drafted to the Reserve Training Establishment at Esquimalt for Summer Training. During the course of the summer, four of the first year Cadets failed to meet requirements and were discharged as unsuitable for further training.

The response to the Fall recruiting campaign was not too good. Twenty-one candidates came before a Selection Board composed of four R.C.N. officers, two faculty members and the Commanding Officer U.N.T.D. Fifteen of the candidates passed the Board and were promoted to Cadet R.C.N.(R). The number of Cadets on strength at present is thirty-eight. This is two below the quota set by Naval Headquarters. All winter training has been carried out by Reserve and Active Force instructors.

Two Cadets will be graduating from University in May, 1951, and will be promoted at that time. One will become a Sub-Lieutenant in the Electrical Branch and the other a Sub-Lieutenant in the Supply Branch.

Two Cadets who graduated in May 1950 joined the Royal Canadian Navy during the early summer.

On February 1, 1951, Naval Headquarters appointed a R.C.N. Officer to the UNTD, University of Alberta, as a full time Staff Officer. He has been of great assistance in keeping routine matters accounted for during the past two months. It is hoped that a similar appointment will be made in the Fall of 1951.

Thirty-four Cadets will be taking training at the West Coast this summer. Present plans call for five-week training cruises. One Cadet, a Law student, will take training in the Legal Branch in Ottawa.

New instructions have abolished the procedure of entering first year students in the UNTD as Ordinary Seamen. All new entries will be taken on strength as

Probationary Cadets for four months. At the end of this time, they will come before a Selection Board, and on passing this Board, this rank will be confirmed.

In the Fall of 1950, Naval Headquarters instituted a plan called "Naval Assistance for University Students". In this plan, final year University Students from any Faculty will be accepted for a career in the Royal Canadian Navy. They hold the rank of Acting/Sub-Lieutenant and receive full pay and allowances until graduation when they are confirmed in that rank. Previous service requirements restricted the intake during 1950-51, but a new plan will likely come forward for 1951-52. One fourth-year Electrical Engineering student is at present completing his course under this arrangement. The plan is not restricted to Cadets in the UNTD.

Report of the Commanding Officer of the RCAF University Flight, Squadron Leader L. E. Gads

Following the conclusion of the university session of 1949-50, flight cadets from this unit were posted as follows: 29 first year cadets proceeded to the officers' indoctrination course at London, Ontario; 7 to Armament course, Trenton, Ont.; 3 to Telecommunications course, Clinton, Ont.; 2 to Aeronautical Engineering, Camp Borden; 1 to Photo course, Rockcliffe, Ont.; 1 to Contact training, NWAC HQ.; 1 to Contact training, Suffield Experimental Station; 1 to Navigation course, Summerside, P.E.I.; 7 to Pilot training, Centralia, Ont.; and 6 granted leave of absence for personal reasons.

At the 8-week indoctrination course at London, Ont., 250 cadets from 9 universities from B.C. to P.Q. completed their initial training and were posted to various schools for specialized instruction. This indoctrination course was described in a special report submitted earlier. One of the main benefits derived by the trainee was the opportunity of meeting students from 9 different universities.

F/L J. Woods replaced F/L J. Gillmore as the Resident Staff Officer and F/L A. Crighton, Dept. of Music, replaced F/L B. Riedel as the Adjutant of the Unit. The post of RCAF Liaison Officer, held by S/L L. E. Gads since 1948, was abolished this spring and the work is now handled by the Unit as such. It consists mainly of liaison with RCAF HQ. in Ottawa and handling of documents of personnel who are attending the University but who are not on the strength of the flight.

The recruiting drive in the fall of 1950 was quite successful, as there was about a dozen applicants more than the required quota of 35 cadets. This permitted the selection board to eliminate doubtful candidates. The present strength of the unit is as follows: 31 first year cadets, 23 second year cadets, 13 third year cadets. There were several resignations this spring from all three sections, main reasons being the opportunities for employment in civilian fields and the necessity of making as much money as possible during the summer holidays because of increased costs.

The joint COTC-RCAF Lounge was very successfully operated by an elected committee representing both the army and the air force cadets. The importance of such accommodation to the success of the scheme became quite evident. A large number of magazines were available and cadets made use of the lounge for social purposes during major university dances and on Sundays, when moving pictures were shown. Some of the winter lectures were given in the lounge and in the lecture room in the Drill Hall but lectures were mainly given in the regular

lecture room in the Arts building. With three flights on hand, this made it easier to handle three lectures at once.

Winter training consisted of lectures given by staff officers of the Unit, visiting lecturers supplied by the RCAF and guest lecturers from the staff of the University. Films were used extensively in the training programme.

Plans are now complete for an indoctrination course at RMC Kingston, Ont. Nine universities will again be represented, plus new officer-cadets entering the regular air force for the first time. Five hundred cadets are expected to attend the course and reserve personnel from all universities concerned are asked to participate in the instructional staff.

S/L Gads, F/L Crighton and F/L Woods are reporting at Kingston to assist in teaching duties.

Report of the Director of the Department of Extension, Mr. Donald Cameron

Statistical Survey

Lectures

University Teaching staff	1,131	
Department of Extension staff	288	
	—	1,359
Aggregate attendance		101,853
Number of radio talks:		
Extension staff	48	
Teaching staff	223	
	—	271
Conferences and short courses, Table XIII		4,139

Visual Instruction

Number of sets of standard slides sent out	91	
Number of 2x2 slides sets sent out	446	
Number of times slides were used	518	
Total audiences viewing slides		24,062
Sets of filmstrips sent out	1,344	
Individual filmstrips sent out	2,848	
Number of times filmstrips were shown	1,901	
Total audiences viewing filmstrips		76,210
Number of lanterns loaned	65	
Number of filmstrip and 2x2 projectors loaned	77	
Sets of sound films sent out	3,711	
Sets of silent film sent out	288	
Number of reels of sound films sent out	15,943	
Total sets of moving picture films sent out	3,999	
Total number of reels of moving picture films sent out	16,896	
Total number of showings of films, sound and silent	5,560	
Total audiences viewing films, sound and silent		521,130
Number of times projection service supplied	407	
Branch Library film showings	2,416	
Number of reels sent out from branch libraries	8,644	
Aggregate attendance at film showings from branch libraries		182,328

Library and Debating Service

Number of travelling libraries in use	90	
Number of times sent out:		
Regular libraries	200	
Special libraries	238	
Recorded circulation		23,901

Open Shelf Circulation

Books:		
Adult	40,778,	
Juvenile	11,022	
Banff School	7,164	
Plays	2,626	
Periodicals and pamphlets	3,700	
	<hr/>	65,290
Number of package libraries for debaters sent out		75

Study Group Material

Number of sets of Citizens' Forum Bulletins sent out (weekly)	150	
Total number of study bulletins sent out		2,500
Number of sets of other study group material sent out		26

New Canadian Plays and Soil Mechanics

Number of copies of New Canadian plays sold	415	
Number of copies of Proceedings of Soil Mechanics and Concrete sold		44

Publications

Press Bulletin, Seasonal Notes	10,000	
Press Bulletin, Feeders' Day Program	4,000	
	<hr/>	14,000
Agricultural bulletins sent out during year	28,759	
Mimeos, circulars and other bulletins sent out	500	
	<hr/>	29,259
Total number of bulletins distributed since inception of service	524,558	
University News Letter:		
Number of issues	11	
Circulation, 11x200		2,200
The New Trail—number sent out		15,900

Extension Work in Oil Industry

Number of drilling rigs	29	
Number of conferences held	177	
Number of crew members, supervisors, etc., attending conferences		450

Recapitulation

Total aggregate attendance at lectures, conferences, schools and short courses, lantern slide lectures, filmstrip programs, moving pictures, Circulating film exchange, oil conferences		910,172
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Total circulation of travelling library books, Open Shelf, package libraries for debaters, Citizens' Forum Bulletins, sets study group material, New Canadian Plays, Proceedings Soil Mechanics and Concrete	92,251
Total circulation of Press Bulletins, Agricultural Publications, News Letter, New Trail	61,359

Conclusion

This thirty-eighth Annual Report on University Extension Activities* brings to an end a year of record achievement. In one way or another the University has been of some service to an aggregate of over 1,000,000 people. That service has reached into communities from Milk River in the south to Aklavik in the north, and hundreds of points in between.

More significant, however, than the extensive geographic distribution of the service is the marked increase in the number of people who have participated in short courses of substantial educational content and duration. This is a trend that is likely to continue.

Of especial significance is the increasing tendency of business and industry to come to the University for assistance and co-operation in working out their special problems. This is a healthy and mutually beneficial development.

The University's role in the academic and professional fields has long been accepted as basic to the general welfare of the whole community. In this Province it is also a matter of pride that the University has recognized and attempted to meet a responsibility extending far beyond the academic and professional fields. Through its extension services, it is intimately associated with the economic, the social and the cultural development of hundreds of communities which otherwise would have little connection with or interest in the University. As a result of this intercommunication the University and the community are both enriched and strengthened.

*The complete Annual Report on Extension Activities of the University of Alberta for the year ended March 31, 1951, which includes a report on the 1950 session of the Banff School of Fine Arts, is available in printed form.

Table XIII.—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension

Course, Class, Conference	Sponsored by	Held at	Dates	Duration	Attendance
1. Community Art Class	Devon Art Club	Devon	Feb. 8-May 10	14 wkly. lects.	15
2. " "	Medicine Hat Art Club	Medicine Hat	Oct. 20-Apr. 14	23	30
3. " "	Brooks Sketch Club	Brooks	Oct. 19-Apr. 12	24	15
4. " "	Lacombe Art Club	Lacombe	Oct. 18-Apr. 18	25	25
5. " "	Stettler	Stettler	Oct. 31-Apr. 10	22	25
6. " "	Wetaskiwin Art Club	Wetaskiwin	Nov. 10-Apr. 6	21	15
7. " "	Camrose Art Club	Camrose	Oct. 17-Apr. 17	25	20
8. " "	Vegreville Art Club	Vegreville	Oct. 13-Apr. 13	26	30
9. " "	Mannville Art Club	Mannville	Nov. 3-Apr. 20	24	20
10. " "	Viking Art Club	Viking	Oct. 18-Apr. 18	25	20
11. " "	Jasper Art Club	Jasper	Oct. 21-Apr. 14	23	30
12. " "	Red Deer Art Club	Red Deer	Oct. 19-Apr. 19	26	30
13. Life Drawing and Painting	Department of Fine Arts	Edmonton	Oct. 16-Apr. 23	23	10
14. Portrait and Life Drawing	"	"	"	23	21
15. Composition	"	"	"	23	52
16. Advanced Life Painting	"	"	"	23	10
17. Pictorial Design and Tech.	"	"	"	23	5
18. Anatomy	"	"	"	23	4
19. University Women's Club	"	"	"	23	7
20. Pictorial Comp. and Tech.	"	"	"	23	8
21. Comp. in Water Color	"	"	"	23	6
22. Portrait and Life Drawing	"	"	"	23	26
23. Composition	"	"	"	23	39
24. Still Life-Water Color	"	"	"	23	19
25. Theory of Color	"	"	"	23	4
26. Portrait and Life Drawing	"	"	"	23	7
27. Silk Screen Theory and Practice	"	"	"	23	7
28. Choral Leadership	Department of Extension	"	Jan. 22-Mar. 26	10	42
29. Commercial Law	"	"	Jan. 22-Mar. 26	10	136
30. Can. Econ. Problems and Policy	"	"	Jan. 23-Mar. 27	10	31
31. Interior Decoration	"	"	Jan. 23-Mar. 27	10	269
32. Conversational French	"	"	Jan. 24-Mar. 28	10	39
33. Canada and the World	"	"	Jan. 24-Mar. 28	10	51
34. Landscaping the Small Lot	"	"	Jan. 25-Mar. 29	10	97
35. Teen Ageds and Their Problems	"	"	Jan. 25-Mar. 29	10	17
36. Art History and Appreciation	"	"	Jan. 26-Mar. 30	10	20
37. Music Appreciation	"	"	Jan. 26-Mar. 30	10	54
38. Personnel Testing Methods	"	"	Jan. 26-Mar. 30	10	54
39. Accounting I	Department of Psychology and Ed- monton, Personnel Association	"	Jan. 9-Mar. 13	10	25
40. Fund. of Cost Accounting	Reg. Institute of Indust. Accountants	"	Oct. 9-Mar. 30	20	19
41. Ind. Org. and Management	"	"	"	20	23
	"	"	"	20	15

Course, Class, Conference		Sponsored by		Held at		Dates	Duration	Attendance
		Reg. Inst. of Indust. Accountants		Edmonton	Calgary			
42.	Mathematics	"	"	"	"	Oct. 9-Mar. 30	20	19
43.	Accounting I	"	"	"	"	"	20	40
44.	Fund. of Cost Accounting	"	"	"	"	"	20	14
45.	Ind. Org. and Management	"	"	"	"	"	20	8
46.	Mathematics	"	"	"	"	"	20	29
47.	6th Annual Refresher Course in Sanitary Inspection	Alta. Public Health Assoc., Faculty of Agric., and Dept. of Extension		Edmonton		Apr. 17-21	5 days	26
48.	12th Refresher Course in Municipal Administration	Sec.-Treas. and Dept. of Mun. Affairs		Banff		May 24-27	4 days	63
49.	Recreational Leadership	Health and Recreation Branch, Dept. of Phys. Ed. and Rec. Commission		Edmonton		May 22-June 10	20 days	33
50.	Third Mud School	*C.A.O.D.C.		"		May 29-June 9	12 days	59
51.	Oil Treating School	Western Can. Petroleum Assoc.		"		June 12-23	12 days	33
52.	Management Institute	*C.A.O.D.C.		Calgary		June 23-24	2 days	36
53.	Fourth Mud School	*C.A.O.D.C.		Edmonton		June 12-23	12 days	28
54.	Gas Metering School	Dept. of Petroleum and Chemical Engineering		Edmonton		Aug. 21-Sept. 1	12 days	27
55.	Short Course for Small Libraries	Alta. Library Association and Dept. of Extension		"		May 30-June 2	4 days	23
56.	32nd Annual Farm Young People's Week	Faculty of Agriculture School of Household Economics School of Nursing		Edmonton		June 2-9	8 days	200
57.	6th School Administration	Alberta School Trustees		"		June 6-8	3 days	96
58.	Community Life Conference	Div. Sec.-Treas. and Dept. of Educ. Dept. of Ext. and Community Centres		"		July 5-9	5 days	88
59.	"	"		"		July 12-16	5 days	90
60.	"	"		"		July 19-23	5 days	100
61.	Rural Leadership Course	Dept. of Extension, U.G.G., F.U.A., and Wheat Pool Dept. of Resources		"		Oct. 25-Nov. 2	9 days	20
62.	Forest Conservation	Dept. of Zoology		"		Oct. 30-Nov. 18	3 weeks	19
63.	Wildlife Management	School of Nursing and Faculty of Medicine		Edmonton		Nov. 20-Dec. 10	3 weeks	18
64.	Fishery Management	"		"		Dec. 14-16	3 days	10
65.	Improving Nursing Care	"		"		Jan. 15-26	4 weeks	197
66.	Paint Power	Ed. Paint Club, Can. Paint, Varnish, Lacquer Association		"		Jan. 27-Feb. 24	5 wkly. lects.	70
67.	Banff School of Fine Arts	Dept. of Extension		"		July 11-Aug. 19	6 weeks	488
68.	Nursing Service Personnel	School of Nursing, Faculty of Medicine, Alberta Assoc. of Reg. Nurses		Banff Edmonton		Mar. 19-23	5 days	78
69.	Improving Nursing Care	School of Nursing Faculty of Medicine		Lethbridge		Feb. 15-17	3 days	68

70. Drama Workshop	Young Adults Drama Club	Sedgewick	Nov. 29-Dec. 1	3 days	15
71. " "	Elnora Drama Club	Didsbury	Apr. 18-19	2 days	15
72. Film Workshop	Dept. of Extension, N.F.B. and Hanna	Elnora	Feb. 26-Mar. 2	5 days	15
73. Film Workshop	Film Council	Hanna	Oct. 29	1 day	60
74 Film Workshop	Dept. of Extension, N.F.B. and Olds	Olds	Nov. 3	1 day	25
75. "	Film Council				
76. "	Dept. of Extension, N.F.B. and McNally	McNally	Nov. 17	1 day	200
77. "	Dept. of Extension, N.F.B. and Crows-	Blairmore	Nov. 16	1 day	57
78. "	nest Film Council				
	Dept. of Extension, N.F.B. and Fore-	Foremost	Nov. 18	1 day	80
	most Area Film Council				
	Dept. of Extension, N.F.B. and Big	Big Valley	Nov. 28	1 day	160
	Valley H. & S. Association				
79. Preliminary Art Course	Dept. of Extension				
80. Conversational English	" "	Banff	June 26-July 9	12 days	41
81. Music Appreciation	" "	Edmonton	Feb. 16-April 18	10 wks.	6
82. Public Speaking	" "	Lacombe	Mar. 13-May 15	10 "	31
83. Short Course for Purchasing Agents	Purchasing Agents Association of Ed-	Edmonton	Feb. 26-Mar. 30	10 "	12
	monton		Mar. 12-Apr. 16	5 "	64
84. Leathercraft	Dept. of Extension	Banff	Nov. 15-Mar. 30	20 "	8
85. Weaving	Imperial Oil Ltd.	Banff	"	20 "	9
86. Agricultural Short Course		Edmonton	Feb. 5-7	3 days	23

*Canadian Association of Oilwell Drilling Contractors.

Report of the Director of the Provincial Laboratory of Public Health, Dr. R. D. Stuart

The year 1950 saw an important number of important changes: the retirement of Dr. Shaw; the opening of the Southern Branch of the Provincial Laboratory in Calgary; the transference of this Laboratory to its new quarters.

Retiring Director

Dr. R. M. Shaw joined the staff of the Provincial Laboratory in September, 1920, and succeeded Dr. A. C. Rankin as Director in September, 1945. Throughout his long association with the Laboratory he devoted his energies to it in an entirely selfless manner and every credit should be given to his efforts, both as Director and in association with Dr. Rankin, for the rapid development of the Laboratory services in this Province. He possessed the rare and fortunate quality of inspiring respect and devotion in his staff. Indeed, he could scarcely otherwise have maintained the efficiency of the Laboratory with the ever-increasing handicap of lack of space and facilities under which it laboured for so many years.

Southern Branch of the Provincial Laboratory in Calgary

The opening of this Branch Laboratory on January 3rd, 1950, marked the first significant development in the extension of laboratory facilities in the Province. Its location will lessen the difficulty in the transport of material from the southern part of the Province, and will obviate the serious delay in the receipts of reports due to the distance previously involved. The Laboratory has been fortunate in securing the services of Dr. Shute, an exceptionally well-trained and highly competent clinical pathologist, to direct its varied activities. As will be seen from his accompanying report, the services of the Laboratory are in ever-increasing demand by the practitioners of the area. This is particularly evident in the continued monthly increase in the number of tissue specimens sent for pathological histology examination and in the number of bloods for the diagnosis of syphilis. A total of 49,860 examinations were carried out during the year.

The New Provincial Laboratory

The new Provincial Laboratory was occupied in December of this year, after a considerable and unfortunate delay due to unforeseen architectural difficulties. That the transference of materials, equipment, and staff at this difficult time of year was achieved without any interruption in service must be credited to the high sense of duty and to the exceptional efforts of the technical staff, who personally carried over all the current specimens and materials and continued working on them under the most unusual conditions. The late period of the year and the climatic conditions made it impossible to transfer the animals, used for diagnostic and experimental work, to their new quarters at the same time. This will entail considerable difficulty for some time, but it is hoped that the transference will be completed as early in 1951 as weather permits. The new Institute is substantially built of brick and concrete, and its elaborate air-conditioning system is expected to provide reasonable working conditions. As yet it is too early to comment on the functional suitability of the laboratories, but the relief from the appalling congestion of the old quarters is commented on by everyone concerned. One obvious matter of immediate urgency, however, is the construction of a hard surface roadway by which the building may be approached.

Laboratory Services

Bacteriological—The number of examinations completed during the year amounted to 142,268, an over-all decrease of 31,238 from the preceding year. It is very evident that this decrease is due mainly to the transference of examinations from the southern part of the Province to the new Laboratory in Calgary. For instance, in syphilis serology alone the decrease amounted to 27,560 examinations, whereas the number of such examinations recorded from the Calgary Laboratory amounted to 29,903. Consequently, it is more fitting to point out that the total of Laboratory examinations carried out in the Province showed an increase of almost 19,000.

In addition to maintaining the standard and gradually extending the scope of what may be termed public health bacteriology, it is hoped that in its new quarters the Laboratory will be able to provide better service for individual diagnostic material derived mainly from hospitals. Significant in this type of examination is the increased number (1,075) of tests carried out on the antibiotic sensitivity of organisms. Indeed, it may be true that in relation to human disease, the function of the bacteriological laboratory may be more and more the determination of a suitable therapeutic agent than the absolute identification of the species of infecting micro-organism.

During the year the number of diagnosed cases of enteric fever and of *Salmonella* infections remained about average. One small epidemic of paratyphoid fever was encountered in Fort Smith, N.W.T. The infecting organism was *S. paratyphi B*, and thirteen cases were confirmed by laboratory investigation. The outbreak, according to our records, involved three families and a few isolated cases, and originated from river water contamination by sewage from a building a short distance upstream.

The investigation of gonococcal infections by cultural methods, for which 1,788 examinations were recorded in 1949, was not pursued during 1950. This is ascribable partly to the inherent difficulties in the procedure, especially in the satisfactory transport of material, and partly to the loss of a considerable number of experienced workers who could not be replaced immediately. This activity may be revived in 1951, and an exploration of the problems concerned is already under way.

Pathological—Gross and histological examinations of surgical specimens sent in from rural hospitals continued to form the major portion of the work done in the Department of Pathology. It is interesting to note that the number of specimens examined continues to increase year by year, in spite of the fact that the Southern Branch is now carrying on tissue examinations for districts south of Red Deer. Routine examination of tissue removed in surgical operations is well justified by the number of unsuspected and sometimes very early cancers which are disclosed.

Smear examination as a procedure for the diagnosis of cancer is growing in popularity, and specimens of bronchial secretions, cervical secretions, gastric washings, etc., were forwarded for examination in increasing numbers. This form of diagnosis may be regarded as an adjunct to other diagnostic methods, but will not supplant surgical biopsy as the method of choice.

Examinations of autopsy tissues forwarded by rural physicians are also increasing each year, and it is gratifying indeed to see the numbers of rural practitioners who find time to carry out their own autopsies in the midst of a busy practice.

Medico-legal examinations, Ascheim Zondek Tests, and Haematological examinations continued at about the same level as in previous years.

Mycological—The increasing importance of this section of the laboratory's activities deserves separate mention. The number of specimens examined, 356, may not appear significant compared with, say, the thousands of serological tests carried out in bacteriology, but each test indicates an investigation prolonged often over months and demands a very high degree of specialized knowledge and experience. Thus an increase of sixteen per cent over last year in the examinations carried out reveals an important development in the demand for this type of investigation. So far the diagnostic activities of this department have been supported largely through the courtesy of Dr. Keeping, working under a Federal Research Grant, but it seems evident that the increasing realization of the medical importance of fungal infections will soon demand a more formal organization to deal with it.

Staff and Equipment

In July, 1950, the staff of the Department of Pathology was augmented by the addition of Dr. Douglas Waugh, M.D., Ph.D. Dr. Waugh is a graduate of McGill University, and his fine training in diagnostic histology and morbid anatomy has made him a very valuable addition also to the staff of the Provincial Laboratory.

No other significant appointments were made during the year, but it must be pointed out that the separation of the new Provincial Laboratory from the Departments of Bacteriology and Pathology entails a certain duplication of activities, and consequently a number of technical workers previously carrying out work in both laboratories will have to be transferred wholly to the department chiefly requiring their services.

Only equipment routinely required was purchased during the year, but the installation of new sterilizing equipment in the present building has relieved the previous dangerous situation in which partially derelict sterilizers were carrying loads far above their capacity. A new tissue processing machine was bought for the Pathology Department. Such machines are expensive, but its essentiality for the increasing load of histological work is demonstrated by its constant daily use.

The separation of the new building from the Medical School must also be remembered in connection with future equipment required. Workers cannot carry heavy and expensive equipment backward and forward, and a certain duplication of such equipment will be inevitable.

Table XV.—Work Performed in the Provincial Laboratory, Southern Branch, Calgary, During the Year 1950

	Total 1949	Total 1950	Increase	Decrease
Sputum Examination	973	836	.....	137
Diphtheria and Haemolytic streptococci...	4,704	5,492	788	.....
Typhoid Fever (Agglutination Test)	2,118	1,896	.....	222
Milk	1,125	1,386	261	.....
Water	5,190	4,127	.....	1,063
Guinea pig inoculations	1,716	2,047	331	.....
Miscellaneous Bacteriology	7,057	7,465	408	.....
Blood Cultures	780	680	.....	100
Enterobacteria and Intestinal Parasites	1,079	2,928	1,849	.....
Urinalyses	16	25	9	.....
Medico-Legal (Blood, Seminal, etc.)	7	7	.....	.....
Cerebro-spinal fluids for the Wassermann Test	3,043	2,414	.....	629
Bloods for the Quantitative Kahn Test	2,845	1,639	.....	1,206
Bloods for the Wassermann Test	11,286	6,819	.....	4,467
Bloods for the Standard Kahn Test	10,903	6,748	.....	4,155
Bloods for the Presumptive Kahn Test	85,230	68,127	.....	17,103
Smears for Gonococcus	12,701	8,763	.....	3,938
Cultures for Gonococcus	1,788	1	.....	1,787
Van Den Bergh determinations	106	.....	.....	106
Pathological Histological material	11,340	10,363	.....	977
Blood Smear Examinations	159	88	.....	71
Post Mortem Examinations (Edmonton)...	321	385	64	.....
Post Mortem Reports (outside points)	137	104	.....	33
Ascheim Zondek Tests	737	564	.....	173
Comparative Series	13	2	.....	11
Fluids for Cancer Cells	177	294	117	.....
Cancer Cytology	36	66	30	.....
Bone Marrows	40	51	11	.....
Cerebro-spinal fluid, examination (Colloidal Gold, Pandy)	3,426	3,331	.....	95
Bacteriological examinations (P.M.)	67	22	.....	45
B. abortus examinations (Agglutination Test)	2,118	1,860	.....	258
P. tularensis (Agglutination Test)	2,118	1,860	.....	258
B. melitensis (Agglutination Test) .....	.....	2	2	.....
Antibiotic sensitivities, etc.	*	1,374	1,374	.....
Mycological examinations	*	356	356	.....
Cattle Blood (Bang's disease Agglutination Test)	150	146	.....	4
Total	173,506	142,268	5,600	36,838

*Not recorded separately.

Report of the Director of the Provincial Laboratory of Public Health, Southern Branch, Dr. D. Shute

This first annual report on the work conducted at the Southern Branch, Provincial Laboratory, Calgary, is a summation of twelve monthly reports.

As the Southern Branch commenced operations on January 3rd, 1950, we have almost completed a full calendar year. From January to March, 1950, there was a rapid increase in the volume of work and for the succeeding nine months the work remained fairly steady with slight seasonal fluctuations. These variations appear to be related to the activities of a farming community (planting, harvesting,

etc.). In spite of the dispatch of a concise and simple letter to announce our opening to all physicians and hospitals in the Southern half of the Province, we still receive queries and requests which demonstrate that the letter was not read by many individuals.

This complete or partial ignorance of the Laboratory services offered in Calgary has considerably restricted our work, and this might be considered fortunate in that we have progressed smoothly through a difficult year without a major breakdown in any department.

It is possible that many more specimens will be received in 1951 as the knowledge of our existence slowly spreads to those who can benefit by the services offered.

Animal work is restricted at present by lack of cage space and some overcrowding of the present guinea pig population of about 285 pigs. New cages are on order and when available should enable a more rapid turnover of specimens for the isolation of *Mycobacterium tuberculosis* in guinea pigs and the conducting of the greatly needed Friedman Pregnancy Test in rabbits.

There have been only four inadvertent deaths amongst the pigs (pneumonia in all cases) which speaks well for the good design of the cages, the suitability of the building provided as an animal house and the care of the animal attendant (Mr. W. Anderson).

It is hoped that accommodation for two sheep will be provided in the near future so that a ready supply of sheep's blood will be available to replace the risky mailing of sheep's red blood cells from Edmonton.

An increase of the work in connection with the control of Tuberculosis must be anticipated in the future following the work of the Mobile X-ray teams in their general survey of the population.

The numbers of milks and waters submitted for bacteriological examination have shown slight steady increases.

It was found necessary to be more rigid in the control of the techniques used for the examination of milks after complaints had been received from various dairies to the effect that the results did not demonstrate the true condition of their products. With the co-operation of the Sanitary Authorities iced milk samples now reach the Laboratory with a minimum delay of 30 minutes. The samples are then examined strictly according to the techniques prescribed in "Standard Methods for the Examination of Dairy Products", 9th Edition. The results of this more rapid delivery of the samples and their examination under more rigidly controlled conditions have been seen in the fall on the Official Plate Counts to more reasonable (although not yet satisfactory) levels.

The work of the Serology Department in connection with the diagnosis of syphilis has, from the onset, been one of our largest commitments and we have been assured by many physicians that this service has been greatly appreciated.

Similarly, the histological examination of biopsy and autopsy tissues has been of assistance to many practitioners in the southern half of the Province.

There have been no epidemic outbreaks of communicable diseases during the year so that the bacteriology staff has been occupied with routine investigations (urethral smears for *Gonococci*, throat swabs for *diphtheria bacilli*, etc.).

The Clinical Pathology conducted for the Central Alberta Sanatorium is unlikely to increase to any great extent as this work is naturally limited to the number of beds available for in-patients.

No major buildings projects are contemplated, but as the Laboratory was never completed by internal painting this will need to be done in the near future.

The technical equipment was very adequate from the outset so that the only major additions have been one English centrifuge and one English tissue processing machine. Both are giving satisfactory service, and compared with their American counterparts are considered superior from both engineering and design points of view.

Training facilities in histological technique were given to one technician from the Galt Hospital, Lethbridge.

Similar training in the Serology of syphilis has been offered to the Holy Cross Hospital, Calgary, and one trainee technician from that hospital is at present working in the Serology Department.

The staff is still predominantly composed of those who volunteered for transfer from the Edmonton Provincial Laboratory, and these together with a few replacements and additions recruited in Calgary have all worked willingly to endeavour to establish a reputation for courteous, speedy and accurate work.

**Table XIV.—Work Performed in the Provincial Laboratory, Edmonton,
During the Year 1950**

Sputum Examinations	3,758
Diphtheria and Haemolytic Streptococci	368
Typhoid Fever (Agglutination Test)	632
Milk	518
Water L.....	903
Guinea pig inoculations	522
Miscellaneous Bacteriology	442
Blood Cultures	95
Enterobacteria and Intestinal Parasites	88
Urinalyses	2,778
Medico-Legal (Blood, Seminal, etc.) .....	.....
Blood Counts	1,581
Biochemistry Investigations	138
Cerebro-spinal fluids for the Wassermann Test	700
Bloods for the Quantitative Kahn Test	582
Bloods for the Wassermann Test	3,696
Bloods for the Standard Kahn Test	3,352
Bloods for the Presumptive Kahn Test	21,573
Smears for Gonococcus	3,919
Van Den Bergh Determinations	57
Pathological Histological material	2,038
Blood Smear Examination	65
Post Mortem Examinations	5
Histology from Post Mortems	32
Ascheim Zondek Examinations .....	.....
Fluids for Cancer Cells	46
Cerebro-spinal fluid Examinations (Colloidal Gold, Pandey)	707
Bacteriological Examinations (P.M.)	1
B. abortus Examinations (Agglutination Test)	632
P. tularensis (Agglutination Test)	632
B. militensis (Agglutination Test) .....	.....
Cattle Blood (Bang's disease—Agglutination Test) .....	.....
Total.....	49,860

Report of the Director of the Industrial Laboratories, Mr. J. A. Kelso
Table XVI.—Examinations and Analyses

I would give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the year July 1, 1950, to June 30, 1951.

Acid	7	Fruit	8
Agate	1	Fruit juice	1
Alcohol	2	Fungi	4
Alfalfa Meal	3	Galena	2
Aluminum	2	Gasoline	57
Antifreeze	10	Glauber salts	12
Ash	1	Glass	1
Asphalt	2	Gold	1
Babbitt Metal	2	Grain	8
Barytes	5	Gravel	16
Bentonite	4	Grass	1
Bitumen	1	Granite	6
Blood	81	Grit	2
Bones	2	Gypsum	3
Bone Meal	1	Hair	13
Brain, for alcohol	33	Hay	1
Brick	3	Honey	1
Bread	3	Hoof meal	5
Brine	1	Industrial Chemicals	14
Briquettes	11	Insect	1
Breakfast cereal	1	Insecticides	3
Butter	10	Iron pyrite	3
Cake Mix	1	Iron oxide	2
Candy	2	Iron	1
Cement	5	Jam	1
Cheese	8	Kerosene	3
Chlorine compounds	3	Lard	4
Cinders	1	Liquor, detailed for Liquor Con-	
Clay	19	trol Board	36
Cigarettes	2	Liquor, malt, for Liquor Con-	
Cleanser	2	trol Board	858
Cloth	4	Liquor, miscellaneous	2
Clothes	11	Liquor, Police samples	78
Coal	139	Liquid	1
Codliver oil	1	Lime	2
Concrete	15	Limestone	7
Condiment	1	Linseed oil	1
Cream	3	Machine parts	9
Deposites	11	Magnesite	3
Distiller's grain	4	Margarine	8
Dye	1	Marl	4
Egg melange	6	Meat	17
Fat	8	Meat meal	2
Feed:		Medical chemicals	3
Animal	47	Medicine	9
Poultry	16	Metal	6
Concentrates	10	Mica	7
Fertilizer	1	Milk	19
Fire exhimits	5	Minerals	4
Fish	3	Molasses	2
Flax	3	Mortar	5
Flour	87	Mushroom	3
Food, human	5	Narcotics, O. & N.D. Act ex-	
Fossil	1	hibits	97

Oats	4	Soap	10
Obsidium	1	Soap powder	6
Ochre	1	Soft drinks	2
Oil:		Soils	59
Crude	1	Sterilizing solutions	1
Lubricating	13	Steel	3
Protective	1	Straw	1
Fuel	2	Sugar	2
Oil residue	8	Syrup	2
Ore	91	Tallow	1
Paint	25	Talc	2
Paper	2	Tankage	17
Pills	11	Tile	1
Pipe metal	1	Tea	1
Pitch	1	Tar	1
Plants	1	Tuffa	1
Plaster	5	Urine	77
Poison exhibits, miscellaneous.....	10	Varsol	3
Poison examinations, human.....	102	Varnish	1
Police exhibits, miscellaneous.....	11	Vegetable	3
Powder	8	Volcanic ash	1
Quartz	9	Water, sanitary	1202
Rock	31	Water, poison	8
Rope	2	Water, industrial	49
Rubber	2	Wax	5
Salve	1	Wheat	112
Sand	27	Wort	4
Sandstone	2	Wood	5
Salt	13	Veterinary exhibits	563
Scale	4	Engineering materials:	
Schist	6	Concrete cylinders	4973
Seed grain	3	Electrician gloves	214
Sewage	1	Wire rope	16
Shale	4		
Sludge	5	Total	9723

Engineering materials were, as usual, handled in conjunction with Departments of Civil and Electrical Engineering. As required, analyses were made for and investigations carried out for various government departments—Attorney General, Lands and Mines, Health, Agriculture, Veterinary Laboratory, Alberta Liquor Control Board, etc. The latter now requires the Provincial Analyst to have complete control over quality of all liquors sold by the Board and to inspect all breweries and a new distillery erected in Calgary. Work for this Board has been heavy and successful.

We have a close working agreement with Research Council of Alberta, especially the Oil and Gasoline Testing Laboratory.

Necessary court evidence was given under Provincial and Dominion acts and regulations and the Criminal Code.

All required analyses were made for police forces and the provincial coroners, and the Provincial Analyst must be available at all times for court attendance and in most cases make his own analyses.

Detailed analyses were made on some 1,200 samples of water for sanitary purposes.

This program of analyses, etc., for provincial and industrial purposes has been heavy and carried out by a staff of only two assistants.



REPORT
OF
THE GOVERNORS
OF THE
UNIVERSITY OF ALBERTA
1951-52

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To the Lieutenant Governor in Council

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to transmit through the Minister of Education the Report of the University of Alberta, setting forth the revenues and expenditures for the year ending March 31st, 1952, and the investments as they stood at the end of the fiscal year.

Appended to this report is the Report of the President of the University, in which the academic work of the University for the year, July 1st, 1951, to June 30th, 1952, is dealt with in detail.

C. M. MACLEOD, *Chairman*

A. STEWART, *President*

November 30th, 1952

Financial Statements

UNIVERSITY OF ALBERTA STATEMENT A BALANCE SHEET AS AT MARCH 31, 1952

ASSETS

Fixed:

Buildings and equipment in service:		
Land, buildings and plant, Schedule 1	\$10,007,786.80	
Furnishings and equipment, Schedule No. 2	2,119,082.62	
		\$12,126,869.42

Loan receivable:

Students' Union re Students' Union building, see contra	379,355.18
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Current:

Cash on hand and in banks	\$ 378,164.06	
Accounts receivable:		
Sundry debtors	\$ 84,282.27	
Less: Reserve for doubtful accounts	2,500.00	
	\$ 81,782.27	
Government of the Province of Al-		
berta re construction of buildings	129,045.15	
		210,827.42
Accrued interest		908.33
Merchandise held for resale, Schedule No. 4		90,398.39
Government of Canada bonds, par value		10,000.00
(Market value \$9,275.00)		
		690,298.20

Prepaid expenses:

Supplies on hand, Schedule No. 4	\$ 77,015.98	
Unexpired insurance	1,741.64	
Legal retainer fee	375.00	
Unemployment insurance stamps	297.54	
		79,430.16

Other assets:

Livestock inventory	\$ 26,436.50	
Deposit, Workmen's Compensation Board	8,564.00	
Agreement for sale	3,925.00	
		38,925.50

Trust:

Investments, par value:		
Government of Canada, direct and		
guaranteed	\$ 1,360,300.00	
Provincial, direct and guaranteed	444,500.00	
Preferred shares	500.00	
	\$ 1,805,300.00	
Cash on hand and in bank	230,966.52	
Loans receivable	95,638.52	
Agreement for sale	400.00	
Real estate, shares and sundry, nominal value	8.00	
Due from General, net	84,585.72	
		2,216,898.76
		\$15,531,777.22

LIABILITIES

Capital and surplus:

Capital provided by the Government of the Province of Alberta	\$10,376,709.13	
Capital surplus	1,849,491.54	
		\$12,226,200.67

Loan payable:

Government of the Province of Alberta re Students' Union building, see contra		379,355.18
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Current:

Accounts payable	\$ 193,406.88	
Due to trust account, net	84,585.72	
		277,992.60

Deferred income:

Fees	\$ 9,845.00	
Other	3,135.00	
		12,980.00

Reserves:

Federal aid funds unexpended	\$ 276,445.07	
Library fees unexpended	25,498.02	
Premium on Rockefeller endowment	18,221.66	
Freight elevators	17,635.39	
University Athletic Board fees unexpended	15,834.78	
Workmen's Compensation Board	14,116.75	
Major alterations and repairs to faculty houses	12,000.00	
Rink repairs	6,216.54	
Medical research	3,000.00	
Infirmity relocation	1,819.05	
Dining room repairs and replacements	1,304.38	
Provincial Laboratory of Public Health, operating...	21,183.27	
Operating, general	5,075.10	
		418,350.01

Trust:

General endowment Rockefeller Foundation	\$ 500,000.00	
Scholarships:		
Escheated estates	\$450,265.41	
General	342,123.80	
		792,389.21
Research		312,506.00
Students' grants and loans		127,559.46
General educational purposes		192,791.51
Pensions		57,206.73
Sundry:		
Administered by the University	\$ 80,352.75	
Held on behalf of others	154,093.10	
		234,445.85
		2,216,898.76
		<u>\$15,531,777.22</u>

Edmonton, Alberta, July 23, 1952

I have audited the books and records of the University of Alberta for the year ended March 31, 1952.

Operating Results

Operations for the year under review resulted in a surplus of \$262,939.66 after providing \$8,909.83 from current revenue for expenditure on new buildings and equipment. Details of operations are shown on Statement B and accompanying schedules.

The surplus for the year was transferred to operating reserve. Transactions within that reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and Calgary has been provided by the Province direct.

Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Inventories of merchandise for resale and supplies on hand are certified as to quantities and prices by officials of the University.

Capital and surplus transactions during the year are summarized hereunder:

Capital provided by the Government of the Province of Alberta:

Balance as at April 1, 1951	\$10,002,489.24	
Add:		
Advances during the year:		
Engineering building	213,067.42	
Agriculture building	39,855.49	
Other buildings and improvements	36,318.28	
Equipment	81,978.70	
Implementation of guarantee	3,000.00	
		\$10,376,709.13

Capital surplus:

Balance as at April 1, 1951	\$ 1,760,078.54	
Add:		
Acquired from trust and donated funds:		
Cancer research laboratory	66,737.34	
Other buildings and equipment	9,994.23	
Library	910.55	
Provided from reserve funds:		
Buildings	16,051.58	
Income contributions:		
Buildings and equipment	8,909.83	
Library	25,965.57	
	\$ 1,888,647.64	
Deduct:		
Sales and disposals:		
Buildings and equipment	39,156.10	
		1,849,491.54
		\$12,226,200.67

Subject to the foregoing remarks, I certify that, in my opinion, the attached Balance Sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1952, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, C.A.
Provincial Auditor

UNIVERSITY OF ALBERTA
STATEMENT OF REVENUE AND EXPENDITURE
FOR THE YEAR ENDED MARCH, 31, 1952

REVENUE

Grants:	
Province of Alberta:	
General	\$ 1,700,000.00
Debt charges, see contra	307,150.59
	<hr/>
	\$ 2,007,150.59
Government of Canada:	
Federal aid	460,925.17
	<hr/>
	\$ 2,468,075.76
Fees:	
Tuition, Schedule No. 7	\$ 664,692.16
Examinations and special, net, Schedule No. 8	3,056.98
	<hr/>
	667,749.14
Interest on Rockefeller Foundation endowment	\$ 15,000.00
Deduct: Transferred to medical research trust	5,000.00
	<hr/>
	10,000.00
Library fees, see contra	18,791.54
University Athletic Board fees, see contra	13,930.84
Operating departments net revenue, Schedule No. 21	14,609.07
	<hr/>
	\$ 3,193,156.35

EXPENDITURE

Instructional expenses:	
Instructional salaries and direct expenses, net,	
Schedule No. 9	\$ 1,836,091.58
Maintenance of buildings, Schedule No. 10	322,100.93
Library salaries and expenses, Schedule No. 11	109,435.23
Administrative salaries and expenses, Schedule	
No. 12	106,073.11
Upkeep of grounds, Schedule No. 13	41,650.72
Provision for library accessions, see contra	18,791.54
Provision for University Athletic Board expenses,	
see contra	13,930.84
Calendars, scientific and other publications, Sche-	
dule No. 14	11,535.90
Student guidance office, Schedule No. 15	11,340.87
Alterations, Calgary branch	7,910.29
Alumni office, Schedule No. 16	7,199.88
Provost's office, Schedule No. 17	6,455.41
Travelling expenses, instructional staff	4,437.47
Library salaries and expenses, Calgary branch, Sche-	
dule No. 18	4,372.19
Pensions arrears, Schedule No. 19	3,048.24
First year committee	250.00
Exchange	135.32
	<hr/>
	\$ 2,504,759.52
Public service departments net expenditure, Schedule	
No. 20	109,396.75
Debt charges, see contra	307,150.59
Buildings and equipment purchased from income,	
Schedule No. 6: General	\$ 8,800.83
Provincial Laboratory of Public Health	109.00
	<hr/>
	8,909.83
	<hr/>
	\$ 2,930,216.69
Surplus for the year ended March 31, 1952, transferred to operating	
reserve	\$ 262,939.66

UNIVERSITY OF ALBERTA

STATEMENT OF OPERATING RESERVE
FOR THE YEAR ENDED MARCH, 31, 1952

Balance as at April 1, 1951	\$	117,796.55	
Deduct:			
Adjustments in respect of previous years:			
Fire loss on farm elevator	\$	3,735.65	
Expenditure on new faculty garages		350.53	
Expenditure on plant science field laboratory....		104.04	
	\$	4,190.22	
Less: Miscellaneous recoveries		1,357.07	
			2,833.15
	\$		114,963.40
Add:			
Surplus for the year ended March 31, 1952	\$	262,939.66	
Transfers from Provincial Laboratory of Public Health operating reserve:			
Excess of expenditure over revenue		3,113.11	
Equipment purchased from income		109.00	
			266,161.77
	\$		381,125.17
Deduct:			
Transfers to trust account:			
Banff School of Fine Arts Administration			
Building	\$	50,000.00	
Library reclassification		28,175.00	
Fellowships		5,000.00	
	\$	83,175.00	
Reserve provisions:			
Federal aid funds unexpended		276,445.07	
Freight elevator in medical building		16,430.00	
			376,050.07
Balance as at March 31, 1952	\$		<u>5,075.10</u>

*To the Governors of the
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1952.

A. STEWART.
President

The Report of the President to Convocation

October 20th, 1951

The graduating class of May, 1951, included a substantial number of students veterans. A decrease in registration in 1951-52 was therefore expected. However, the actual decrease from 3,598 to 3,166 reflects in part a continued decline in the number of students entering first year. In the Report to Convocation in October, 1950, I referred to a disturbing reduction in the number of civilian students coming on to the University. This trend has continued into 1951-52. It is true that first-year registrations have been well maintained in faculties other than the Faculty of Education. A decrease of 90 in the number of students entering the Faculty of Education is regrettable.

Two important developments affecting the University were announced during the summer months. I refer to the provision of federal aid to Canadian universities, and to the extension of courses offered by the University of Alberta at the Calgary Branch.

Following representations from the National Conference of Canadian Universities, and recommendations contained in the Report of the Royal Commission on National Development in the Arts, Letters and Sciences (Massey Report), the Government of Canada announced its support of a policy of federal assistance to universities, and Parliament passed a vote of \$7,100,000 for the year 1951-52. Federal funds are to be distributed, by provinces, on the basis of 50 cents per capita; and among institutions within the provinces, on the basis of eligible students. In Alberta, St. Stephen's College, Edmonton, and Mount Royal College, Calgary, will participate as affiliates of the University of Alberta; and St. John's College, Edmonton, as an affiliate of Ottawa University. The present programme is stated to be provisional and experimental. Now that the Federal Government has recognized the problems of the universities in a period of rapidly rising costs, it is reasonable to expect that assistance from the Federal Treasury will be continued beyond 1951-52. However, before a permanent policy is devised, changes may occur in the manner in which funds are distributed.

In 1945 the Calgary Branch of the University of Alberta was established, and courses were offered in the first year of the Faculty of Education. The second year of the Bachelor of Education programme was added in 1947. On August 8, 1951, the University announced that it would receive applications at the Calgary Branch for admission to courses in the first year of the Faculty of Arts and Science, including those courses required in first-year Nursing, and in the first pre-professional year in Medicine, Dentistry, and Law. Forty-one students are registered in the programmes offered for the first time in 1951-52. It is to be hoped that, in 1952-53 and in succeeding years, more students from the Calgary high schools will take advantage of the facilities now made available to them.

Funds were provided in the 1951-52 capital estimates to enable the University to begin construction of the Engineering Building and the Biological Science Building. Architects were appointed, steel was purchased, and plans were approved

for both buildings. Excavation for the Engineering Building has been begun on the site west of the Medical Building. Owing to regrettable delays, tenders have not yet been received on the Biological Science Building. The Alberta Division, Canadian Cancer Society, has presented the University with the sum of \$150,000 to construct the Dr. John S. McEachern Cancer Research Laboratory. This building, which will provide important facilities for research by members of the staff of the Faculty of Medicine, is to be built as part of the centre wing of the Medical Building. This morning the first sod was turned by Mrs. John S. McEachern, and excavation is expected to commence immediately.

Dr. J. W. Gilles, Director, was able to report a successful Summer Session with 1,700 students—one less than the peak enrolment in 1950. The importance of the Summer Session in advancing the qualifications of teachers is evident from the fact that 1,570 or 92 per cent of the students were registered in the Faculty of Education. The summer session staff included 38 full-time members of the staff of the University of Alberta, with 20 visiting instructors from within the Province, 8 from other provinces, 9 from the United States, and one from Great Britain.

The 19th session of the Banff School of Fine Arts was held from June 25 to August 18, and an experimental autumn class in Painting ran from September 3 to 22. The total registration in the fine arts courses was 474, a reduction of 14 from the number in 1950. The unique character of the Banff School, and the varied activities carried on at it throughout the year, earned for the School the Henry Marshall Tory Award for the institution making the outstanding contribution to adult education in Canada in the academic year 1950-51. The first University of Alberta National Awards in Letters, Music, and Painting and Related Arts were presented at Banff to Miss Mazo de la Roche, Dr. Healey Willan, and Dr. A. Y. Jackson. On August 15 the two chalets built with the Colonel J. H. Woods' Memorial Gift were formally dedicated and presented to the School by Mrs. J. H. Woods of Calgary. The response to appeals for funds to construct an administration and teaching building has been generous, and it is hoped that an early start can be made on this building.

I have again reviewed reports from departments on the activities of members of the staff during the summer months, and find it impossible to do justice to the variety and value of the work undertaken.

The Department of Biochemistry is selected merely to illustrate the activity characteristic of the scientific departments. In this Department four full-time members of the academic staff, along with thirteen research assistants, carried on eleven research projects, supported by funds provided by the National Research Council, the University of Alberta Medical Research Fund, the National Cancer Institute, and the Alberta Tuberculosis Association. The results of one of these projects—an investigation of serum lipase levels in cancer and tuberculosis—are of considerable interest, and are currently being presented in three papers in the *Journal of Clinical and Laboratory Medicine*.

A number of members of staff in the non-scientific departments have found time to complete works for publication. For example, Prof. E. S. Keeping, Department of Mathematics, is the joint author of a textbook on *Mathematics of Statistics*. Dr. Healy and Professor Faucher, Department of Modern Languages, have published their *France: Silhouettes et Croquis*, and Professor Faucher has had accepted for publication in France his translation into French of Thomas Wolfe's *Of Time*

and the River. Three Icelandic Sagas, of which Dr. Scargill, Department of English, is joint author, has recently been issued in Braille by the American Library of Congress.

The year 1951-52 marks the first occasion on which graduate students proceeding to the degree of Doctor of Philosophy have begun their work at the University of Alberta. Two students have been accepted in the Department of Biochemistry and one in the Department of Plant Science.

The Report of the President to Convocation

May 15, 1952

In the President's Report to Convocation on October 20, 1951, I referred to a decrease in student enrolment, resulting partly from the graduation of student veterans and partly, and regrettably, from a decrease in freshmen registration.

There is however some indication that the University is beginning to draw its student body from various parts of the Province more closely in proportion to population distribution; and it is hoped that the expansion of the Calgary Branch will stimulate this trend. It is common knowledge that Greater Edmonton, with some 18 per cent of the population of this Province, has in the past provided the University with a relatively large proportion of its students. This year 35.6 per cent of all students gave an Edmonton address. However, only 22 per cent of the first year students recorded their home in Edmonton.

Professors who have been at the University for twenty years frequently claim that the students of today appear to be much younger than the students were twenty years ago. Contrariwise, it is sometimes said that students are remaining longer in school before coming to the University. Subject to all the difficulties of arriving at a correct interpretation of statistics, it appears that the professors, as usual, are right, but the reason is not that students are coming to the University at an earlier age. This year, among the civilian students, 85 per cent were between 18 and 24 years of age. This compares with 74 per cent in 1931-32. But twenty years ago, 20 per cent of the student body were 25 years of age or older; in 1951-52, only 10 per cent. I must leave you to find the correct explanation of this interesting phenomenon.

While on the subject of students—and surely no subject is more important or intriguing—I must again pay tribute to the successful operation of student self-government. Among those whose sins have, from natural causes, been mostly committed, there is the traditional tendency to deplore the qualities and behaviour of the youth of the day. I frequently find myself in this company. It is therefore astonishing and gratifying to find that these illiterate, undisciplined and amoral products of the home and school do, for the most part, pass their examinations, conduct themselves with propriety, and in general behave in a manner which would be considered most creditable in the case of their parents. Nowhere are these fine capacities more evident than in the management of those matters which are left to the management of the students themselves.

The University is particularly grateful to those students who, during the past year, initiated Varsity Guest Weekend. This successful project was conceived by the Students' Council and executed almost wholly by the students themselves. We have no doubt that over the years Varsity Guest Weekend will make a major contribution

in establishing between the University and its community the friendly understanding which is in the interests of both.

I must once more express our gratitude to the staff for their generous co-operation and their loyal service to the objects of the University. We are pleased that federal assistance has made possible in all universities an upward adjustment of salaries which, in view of rising prices and money earnings in other occupations, was overdue. In addition, classes smaller than those during the peak of the veteran registration are providing the instructional staff with the opportunity of performing more effectively their primary teaching function.

The activity of the academic staff in research and scholarly inquiry is again reflected in the large number of bulletins, reports and articles published. More than 130 have appeared in the past year. Some major works have been completed. Dean John Macdonald's most recent book *Mind, School and Civilisation* is just out. The dust cover says "A 'traditionalist' speaks out for basic values values in Education". Professor E. S. Keeping is the joint author of a University text *Mathematics of Statistics*. Drs. Healy, Faucher and Greene, in the Department of Modern Languages, have completed their University text in French. Members of the Faculty of Education have been busy in the preparation of school texts. Dr. W. D. McDougall has published *The Commonwealth of Nations*, Dr. H. S. Baker *Words and Ideas*, and Dr. Coutts has collaborated in the publications of texts in English literature.

On this occasion when we honour one of the distinguished graduates of the Faculty of Medicine, it seems appropriate to tell you something of the contribution which members of the medical profession are making to medical education in this Province. Excluding the heads of the departments of anaesthesia, clinical medicine, clinical surgery, ophthalmology and pediatrics, 115 practising physicians and surgeons participate under the direction of these departments in clinical instruction to medical students. These highly qualified doctors bring to the University a variety of experience and talent which it would be impossible for the University to make available to its students in any other way. The honoraria vary with rank and the number of hours of clinical teaching. The average honorarium is less than \$275 per year: two-thirds of the clinical instructors receive \$200 or less; and the total remuneration of the 115 is equivalent to the salaries of five full-time professors. The debt of the University, the medical students and the people of the Province, to these men is very great. It is largely their contribution which has brought to the Faculty of Medicine the enviable reputation which it has justifiably earned.

During this stage of declining enrolments the University is not adding to its establishment; and new faces appear less frequently. Occasionally we have to part with those whom we would wish to keep. In 1951-52, the University suffered grievous losses when Dr. Ralph Rutherford, Professor of Geology, Mr. J. W. E. Markle, Alumni Secretary, and Dr. Walter H. Scott, Honorary Clinical Professor of Medicine, were taken from us by death.

Before next Convocation three stalwarts in the Faculty of Arts and Science will have retired from office after periods of more than thirty years of service. These include Dean John Macdonald, Professor of Philosophy; Professor Morden Long, Department of History; and Dr. Francis Owen, Department of Modern Languages. Dr. Macdonald and Professor Long will continue as special lecturers for one further year; while Dr. Owen leaves for Europe to pursue and complete for publication his study of early Germanic history.

Under the policy of using to the utmost, in public service, the facilities available to the University, more people are attending more functions in the buildings on the Campus. This necessarily places additional burdens on the maintenance staff. I wish to record our appreciation of the fine contribution being made in this regard by Mr. Maclean and his staff.

Within the limits of its capacity, the University is endeavouring to extend its services to people throughout the Province. Although attendance at the Calgary Branch did not meet our expectations in 1951-52, the expansion of the courses offered there has, we believe, stimulated interest among the people of Calgary in the educational opportunities which the University provides. Dr. Doucette and his colleagues are to be congratulated on the foundation which is being laid; and we look forward to increased registrations in 1952-53.

Evening classes, organized by the Extension Department, have been well supported in both Calgary and Edmonton. The interest shown in these classes has encouraged the University to proceed with plans for evening classes for credit toward degrees. Announcement of classes to be offered in the evening, beginning next September, will be made within the next few days. It is hoped that among those young people who, in the last several years, have left high school for employment, some will seize this opportunity to renew their formal education. The University is looking to employers and to labour organizations for support in this undertaking.

The Extension Department has continued to expand its program of short courses to meet needs as they become apparent; and increasing use is being made of the facilities at Banff. Work has already begun on the new administration building at the Banff School of Fine Arts. Among the interesting new ventures at Banff was the six-weeks course in Business Administration for young business executives. The 1952 course was an outstanding success, and it is hoped that we may be in a position to offer it annually.

One very pleasing feature of the past year has been increasing evidence of the desire on the part of private citizens to support the work and objects of the University in this Province. The University is a monument to an unquenchable faith that education adds to the dignity of man and is effective in raising the level of human welfare. As may also be said of other educational institutions, there is no discernible limit to the useful services which the University can perform. Many are immediate and recognized claims on public funds; but beyond these there is much that can be accomplished through the aid and benefactions of private persons. And so, on behalf of the youth of this Province who benefit, the University acknowledges its thanks to those public spirited citizens who have made possible the new facilities at Banff and the Dr. John S. McEachern Cancer Research Laboratory; who have provided important equipment for teaching and research; who have added to the expanding list of scholarships, bursaries and prizes; and who have placed in the care of the University many rare and valuable objects which will remain with us to inspire generations of students.

I refer, in conclusion, to the encouragement, derived from the continued understanding and generous support received from the Government of the Province. The Rutherford Library, in use for the first time in 1951-52, is a "joy forever". That the facilities are appreciated is best evidenced by the increased use of the library by the students. The Librarian reports that attendance in the various

reading rooms is up by as much as 75 to 100 per cent. This is most gratifying. Progress is being made on the construction of the new Engineering Building, located west of the Medical Building. Provision has been made in the 1952-53 Capital Estimates for expenditures on an Agriculture Building. Construction of this building depends upon approval of plans, which approval we await, hopefully.

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements; resignations; gifts; new scholarships, prizes and medals; staff publications; student registration; and excerpts from the reports of administrative officers.

Table I.—Academic Staff Numbers

Administrative Officers

President	1	
Assistant to the President	1	
Deans of Faculties	7	
Directors of Schools	5	
Director of the Calgary Branch	1	
Director of the Summer Session	1	
Provost	1	
Assistant Provost, Calgary Branch	1	
Director of Student Advisory Services	1	
Dean of Women	1	
Librarian	1	
Superintendent of the University Hospital	1	
Registrar	1	
Assistant Registrar	1	
Bursar	1	
Accountant	1	
Purchasing Agent	1	
Wardens of Residence Halls	3	
Alumni Secretary	1	
	—	31

Full-time Teaching Staff

Professors	57	
Associate Professors	45	
Assistant Professors	68	
Lecturers	43	
Instructors	16	
	—	229
On leave of absence:		
Professors	1	
Associate Professors	1	
Lecturers	1	

Part-time Teaching Staff

Professors	4	
Associate Professors	8	
Clinical Professors	10	
Assistant Professors	8	
Associate Clinical Professors	2	
Assistant Clinical Professors	1	
Lecturers	39	
Instructors	90	
Demonstrators in the Faculty of Education	153	
Demonstrators and student assistants	148	
	—	463

<i>School of Nursing</i>		
Director	1	
Superintendent of Nursing Service	1	
Supervisor of Instruction	1	
Lecturer	1	
Demonstrator	1	
	<hr/>	5
<i>Department of Extension</i>		
Director	1	
Assistant Professors	2	
Agricultural Secretary	1	
Librarian	1	
	<hr/>	5
<i>Library</i>		
Librarian	1	
Reference Librarian	1	
Circulation Librarian	1	
Medical Librarian	1	
Education Librarian, Edmonton	1	
Education Librarian, Calgary	1	
Applied Science Librarian	1	
Law Librarian	1	
Order Librarian	1	
Chief Cataloguer	1	
Assistants	6	
	<hr/>	16
<i>Industrial Laboratories</i>		
Director and Provincial Analyst	1	
Assistant	1	
	<hr/>	2
<i>Provincial Laboratory of Public Health</i>		
Provincial Bacteriologist and Director, Edmonton	1	
Director of the Calgary Branch	1	
Provincial Pathologist	1	
Assistants	4	
	<hr/>	7
<i>Other academic staff</i>		
Dietitians	3	
Radio Secretary	1	
	<hr/>	4
Total		762
Less duplicates		34
		<hr/>
Total Academic Staff		728
		<hr/>

Table II.—Academic Staff Appointments and Promotions

Faculty of Arts and Sciences

Edourad Sonet, M.A., Docteur de l'Université, Professor Emeritus of Modern Languages.

Frederick Millet Salter, B.A., M.A., F.R.S.C., head of the Department of English.

Victor Ernest Graham, B.A., M.A., Assistant Director of the Calgary Branch.

Eric John Hanson, B.A., M.A., Administrative Officer of the Department of Political Economy.

Henry Bertram Mayo, M.A., D.Phil., from Associate Professor of Political Economy to Professor of Political Science.

Robert George Hall Cormack, M.A., Ph.D., from Assistant to Associate Professor of Botany.

Stuart George Davis, M.Sc., Ph.D., from Assistant to Associate Professor of Chemistry.

Richard Stephen Eaton, Mus.B., from Assistant to Associate Professor of Music.

Arthur William Emmanuel Eriksson, M.Sc., M.A., from Assistant to Associate Professor of Physical Education.

Edward Joseph Hollingsworth Greene, M.A., Docteur de l'Université, from Assistant to Associate Professor of French.

Anthony Manuel Mardiros, M.A., M.Litt., from Assistant to Associate Professor of Philosophy.

Donald Burton Scott, B.A., Ph.D., from Assistant to Associate Professor of Physics.

Lewis Gwynne Thomas, M.A., from Assistant to Associate Professor of History.

John Thomas Cook, M.A., B.Paed., B.Ed., Assistant Professor of Philosophy, Latin, and German, Calgary Branch.

Allan Gibb, B.Sc., B.Ed., M.A., Ed.D., Assistant Professor of Mathematics and Physics, Calgary Branch.

James Harvey Harrold, M.A., Ph.D., Assistant Professor of Physics.

Henry Kreisel, M.A., from Lecturer to Assistant Professor of English.

William Mackenzie, B.Sc., B.Litt., M.S., from Lecturer to Assistant Professor of Political Economy (Agricultural Economics and Farm Management).

Arthur Reginald Prince, B.A., M.A., Assistant Professor of Biology, Calgary Branch.

Donald Spearman, B.A., M.A., Ph.D., from Lecturer to Assistant Professor of Psychology.

Robert George Baldwin, B.A., M.A., Lecturer in English.

Grant Robert Davy, B.A., M.A., Lecturer in Political Economy (Political Science).

David Hope Simpson, D.F.C., M.Sc., Lecturer in Geology.

George K. Horton, B.Sc., A.R.C.S., M.Sc., Ph.D., Lecturer in Mathematics.

Martin Claude Martin, B.Sc., M.Sc., Lecturer in Physics, Calgary Branch.

Leo Moser, B.Sc., M.A., Ph.D., Lecturer in Mathematics.

Jocelyn Rogers, B.A., Extension Lecturer in Music.

Robert Thomas Sharp, M.Sc., Lecturer in Physics.

Armas John Sukava, M.Sc., Lecturer in Chemistry, Calgary Branch.

Wilfred Watson, B.A., M.A., Ph.D., Lecturer in English, Calgary Branch.

Lolita Wilson, M.A., Sessional Lecturer in Psychology.

Robert James Crawford, B.Sc., Sessional Instructor in Chemistry.

Ross Allen Garrison, B.Sc., Sessional Instructor in Chemistry.

John Franklin Gillespie, B.Sc., Sessional Instructor in Chemistry.

John Ross McGregor, B.Sc., Sessional Instructor in Mathematics.

Margaret Jeanne Blundell Price, B.Sc., Sessional Instructor in Chemistry.

Eunice Robertson, B.Ed., Sessional Instructor in English.

Roy George Sinclair, B.Sc., Sessional Instructor in Mathematics.

Archibald William Smith, B.Sc., Sessional Instructor in Physics.

William Vaughan Stilwell, B.A., Sessional Instructor in Philosophy.

School of Household Economics

Helen M. Henderson, B.A., Sessional Lecturer in Household Economics.

Margaret Anna MacQueen, B.Sc., Sessional Instructor in Household Economics.

Faculty of Agriculture

Arthur Gilbert McCalla, M.Sc., Ph.D., Dean of the Faculty of Agriculture.

Laird Ward McElroy, M.Sc., Ph.D., head of the Department of Animal Science.

John Unrau, B.S.A., M.Sc. Ph.D., from Associate Professor of Genetics and Plant Breeding to Professor of Plant Science, and head of the Department of Plant Science.

Barney Thorvardur Stephanson, B.E., from Assistant to Associate Professor of Agricultural Engineering.

Robert Hugh Knowles, B.S.A., from Lecturer to Assistant Professor of Horticulture.

Lloyd Muir Smith, M.Sc., from Lecturer to Assistant Professor of Dairying.

Saul Zalik, B.S.A., M.Sc., Ph.D., Assistant Professor of Plant Science.

Faculty of Dentistry

Kenneth Alan McMurchy, B.A., D.D.S., from Lecturer to Assistant Professor of Operative Dentistry.

Donald Saunders Gilmour, D.D.S., Sessional Instructor in Operative Dentistry.

Bruce Munroe MacKenzie, D.D.S., Sessional Instructor in Operative Dentistry.

Louis Anthony Hague, D.D.S., Sessional Instructor in Operative Dentistry.

Faculty of Education

Herbert Thomas Coutts, B.A., M.A., Ph.D., from Associate Professor to Professor of Education.

William Eric Hodgson, B.A., B.Ed., from Assistant to Associate Professor of Education.

Bernal Ernest Walker, M.A., from Assistant to Associate Professor of Education.

Bertha Morse Newton, B.Sc. in Ed., A.M., from Lecturer to Assistant Professor of Education.

Joseph Gowanlock Woodsworth, B.A., B.Ed., Ed.D., Assistant Professor of Education, Calgary Branch.

Alan Hood, Sessional Instructor in Education.

G. Miles, Sessional Instructor in Education, Calgary Branch.

Faculty of Engineering

John William Gregg, B.Sc., M.S., from Assistant to Associate Professor of Petroleum Engineering.

Leonard Eustace Gads, B.Sc., from Assistant to Associate Professor of Civil Engineering.

David Panar, M.Sc., from Lecturer to Assistant Professor of Mechanical Engineering.

Stewart Ronald Sinclair, M.Sc., from Lecturer to Assistant Professor of Civil Engineering.

Michael Metro Chmilar, M.Sc., Sessional Instructor in Chemical Engineering.

Lloyd Alfred O'Morrow, Sessional Instructor in Mining Engineering.

Faculty of Law

Lawrence Yeomens Cairns, Q.C., B.A., Honorary Professor of Law.

Howard Judson Bishop, B.A., LL.B., Sessional Instructor in Commercial Law.
Gilbert McNeil Duggan Blackstock, B.A., LL.B., Sessional Instructor in Commercial Law.

Faculty of Medicine

Ardrey Whidden Downs, M.A., M.D., D.Sc., F.A.A.S., F.A.C.P., Professor Emeritus of Physiology and Pharmacology.
John James Ower, V.D., B.A., M.D., C.M., F.R.C.P.(C.), Professor Emeritus of Pathology.
Howard Havelock Hepburn, M.C., M.D., C.M., F.R.C.S., F.A.C.S., F.R.C.S.(C.), Honorary Professor of Surgery.
John Watt Macgregor, B.A., M.D., from Assistant Pathologist to Provincial Pathologist in the Provincial Laboratory of Public Health, and head of the Department of Pathology.
Thomas Roy Clarke, M.D., M.R.C.O.G., from Lecturer to Assistant Professor of Gynecology.
Alexander Havelock Maclellan, m.i.d., B.Sc., M.D., M.R.C.O.G., from Lecturer to Assistant Professor of Obstetrics and Gynecology.
Gordon Edward Myers, M.Sc., Ph.D., from Lecturer to Assistant Professor of Bacteriology, and Assistant Bacteriologist in the Provincial Laboratory of Public Health.
Olav Rostrup, M.D., F.A.C.S., F.R.C.S.(C.), from Lecturer to Associate Clinical Professor of Orthopedic Surgery.
Albert William Hardy, M.D., F.A.C.S., F.R.C.S.(C.), from Instructor to Lecturer in Clinical Surgery.
Charles Heath, B.Sc., Lecturer in Physiology.
Margaret MacSteven Hutton, B.A., M.D., F.R.C.S.(C.), from Instructor to Lecturer in Obstetrics and Gynecology.
Guy Kent Morton, M.D., from Instructor to Lecturer in Neurosurgery.
Stephen Sackville Parlee, B.Sc., M.D., M.R.C.O.G., from Instructor to Lecturer in Obstetrics and Gynecology.
Harold Lane Richard, M.D., F.R.C.S.(C.), from Instructor to Lecturer in Clinical Surgery and in Surgical Anatomy.
Moses Weinlos, B.A., M.D., F.R.C.S., F.R.C.S.(C.), from Instructor to Lecturer in Pathology.
Theodore H. Aaron, B.Sc., M.D., Sessional Instructor in Clinical Medicine.
Louis Emile Beauchamp, B.Sc., M.D., Sessional Instructor in Pediatrics.
Donald Munns Bell, M.D., Sessional Instructor in Obstetrics and Gynecology.
Richard Crofton Blakely Corbet, B.Sc., M.D., Sessional Instructor in Pediatrics.
Douglas Melvin Cram, M.D., Sessional Instructor in Pediatrics.
Robert Robertson Francis, B.A., M.D., F.R.C.S.(C.), Sessional Instructor in Urology.
Gordon Cameron Gray, M.D., Sessional Instructor in Orthopedic Surgery.
Lloyd Carl Grisdale, B.Sc., M.D., Sessional Instructor in Pediatrics.
William Francis Melville Hall, B.Sc., M.D., F.R.C.S.(C.), Sessional Instructor in Clinical Surgery.
Donald Cooper Johnston, M.D., Sessional Instructor in Orthopedic Surgery.
Samuel Kling, B.A., M.D., F.R.C.S.(C.), Sessional Instructor in Clinical Surgery.
Matthew Matas, M.D., Sessional Instructor in Clinical Medicine.

George Schwindt, B.Sc., Instructor in Bacteriology.
 George Alexander Smith, M.R.C.S., L.R.C.P., Sessional Instructor in Radiology.
 Donald Forbes Cameron, M.B.E., m.i.d., B.A., M.D., Sessional Demonstrator
 in Physiology.
 Roy Yuen Powlan, B.Sc., M.D., Sessional Demonstrator in Anatomy.
 Thomas John Speakman, M.D., M.Sc., Sessional Demonstrator in Physiology.
 Kenneth Arthur Ward, M.D., Sessional Demonstrator in Anatomy.

School of Pharmacy

Dennis Nicholas Strilchuk, B.Sc., Sessional Lecturer in Pharmacy.

Department of Extension

Darroch Duncan Campbell, B.Com., B.A., from Lecturer to Assistant Professor
 in Extension.

Library

Bruce Braden Peel, M.A., B.L.S., Chief Cataloguer.
 John Edgar Dutton, B.A., B.L.S., Library Assistant, Medical Reading Room.
 Caroline Blair Hicks, B.A., B.L.S., Library Assistant, Cataloguing.
 Melba Mae Morrison, B.A., B.L.S., Library Assistant, Reference.
 Dorothy Edith Ryder, B.A., B.L.S., Library Assistant, Circulation.

Department of Physical Education

Elaine Anna Fildes, B.Sc., from Instructor to Lecturer in Physical Education.
 Alan Ferguson Affleck, B.P.H.E., Instructor in Physical Education.

Other Appointments

Erika P. Crichton, M.B., Ch.B., Assistant Bacteriologist, Calgary Branch of the
 Provincial Laboratory of Public Health.
 Frank Glenfield, Business Manager of the Studio Theatre.

Table III.—Leave of Absence for Advanced Study

Hector Ewart Duggan, M.D., Instructor in Radiology.
 Edward Hunter Gowan, B.A., B.Sc., D.Phil., F.R.Met.S., Associate Professor of
 Physics (Sabbatical).
 John Thomas Jones, B.A., M.A., Professor of English (Sabbatical).
 Bernard Edward Riedel, M.Sc., Assistant Professor of Pharmacy (Sabbatical).
 Lloyd Muir Smith, M.Sc., Lecturer in Dairying.

Table IV.—Retirements

Robert James Lang, B.A., M.A., Ph.D., F.A.P.S., F.R.S.C., Professor of Physics.
 John James Ower, V.D., B.A., M.D., C.M., F.R.C.P.(C.), Professor of Pathology,
 Provincial Pathologist and Serologist.

Table V.—Resignations

Marjorie Anne Bailie, B.A., B.L.S., Library Assistant.
 Howard Havelock Hepburn, M.C., M.D., C.M., F.R.C.S., F.A.C.S., F.R.C.S.(C.),
 Professor of Neurosurgery.
 Violet Onerva Katainen, B.H.E., M.S., Lecturer in Household Economics.
 Douglas Oliver William Waugh, M.D., C.M., M.Sc., Ph.D., Associate Professor
 of Pathology and Assistant Provincial Pathologist.

Table VI.—Gifts

From the National Research Council, \$52,142.10 in accountable advances for research work under the direction of the following staff members: Dr. C. F. Bentley, \$1,350; Dr. J. P. Bowland, \$2,156.25; Dr. R. K. Brown, \$850; Dr. D. R. Clandinin, \$675; Dr. H. B. Collier, \$4,000; Dr. W. G. Corns, \$1,880.; Dr. S. G. Davis, \$350; Dr. G. W. Govier, \$875; Dr. E. H. Gowan, \$1,592.65; Dr. W. E. Harris, \$1,150; Dr. R. C. Harrison, \$190; Dr. A. W. Henry, \$2,220.12; Dr. R. J. Hilton, \$1,183.62; Dr. E. O. Hohn, \$500; Dr. L. P. V. Johnson, \$1,229.38; Prof. E. O. Lilge, \$15,590; Dr. R. B. Miller, \$1,000; Prof. I. F. Morrison, \$1,000; Dr. J. L. Morrison, \$864.17; Dr. A. G. McCalla, \$1,100; Dr. K. B. Newbound, \$550; Dr. J. D. Newton, \$2,200; Dr. A. R. Robblee, \$825; Dr. R. B. Sandin, \$100; Dr. D. B. Scott, \$860; Dr. W. C. Stewart, \$600; Dr. J. S. Thompson, \$237.44; Dr. J. A. Toogood, \$500; Dr. J. Tuba, \$3,219.55; Dr. J. Unrau, \$2,207.15; Dr. O. J. Walker, \$311.77; Prof. F. W. Wood, \$775.

From the Defence Research Board, grants for work under the direction of the following staff members: Dr. H. B. Collier, \$5,000; Dr. J. H. Harrold, \$1,500; Prof. B. Hocking, \$200; Dr. H. B. Mayo, \$1,000; Dr. D. E. Smith, \$475; Dr. W. C. Stewart, \$1,500; Prof. F. W. Wood, \$1,000.

From the National Cancer Institute of Canada, grants for research under the direction of the following: Dr. R. K. Brown, \$1,192.87; Dr. H. E. Rawlinson, \$2,447.56; Dr. H. V. Rice, \$1,515.16; Dr. J. Tuba, \$4,915.69.

From the Canadian Cancer Society, Alberta Division, a grant of \$1,200 to Dr. R. B. Sandin.

By the will of the late Mrs. J. S. M. Griesbach, \$6,396.93 for cancer research in the Faculty of Medicine.

From an anonymous donor, \$200 for cancer research.

From the Interprovincial Pipe Line Company, \$4,800 to construct a pipe line test unit required in the work to be done under the fellowship offered by the Company.

From the Barley Improvement Institute, \$3,500 for research in the Department of Plant Science.

From the Alberta Seed Growers' Co-operative, \$800 for research on forage crop seed production.

From Maple Leaf Milling Co. Limited, a further grant of \$500 for research on soft wheat in the Department of Plant Science.

From Robin Hood Flour Mills Limited, a further grant of \$500 for research on soft wheat in the Department of Plant Science.

From Purity Flour Mills Limited, a further grant of \$500 for research on soft wheat in the Department of Plant Science.

From Alberta Linseed Oil Company, \$125 as the first instalment of a grant for oil crops research in the Department of Plant Science.

From United Grain Growers Limited, \$300 for turkey research in the Department of Animal Science.

From Canadian Industries Limited, \$250 for research under the direction of Dr. A. W. Henry.

From Imperial Oil Limited, a grant of \$3,250 for a study on "The Effect of Investment on the Economy of the Province of Alberta" in the Department of Political Economy.

From the Rockefeller Foundation, the first instalment of \$1,000 of a grant for research in the Department of Political Economy.

From the Canadian Construction Association, a grant of \$500 for highway research under the direction of Dean R. M. Hardy.

From Northwestern Utilities, a large Beach gas range for use in the School of Household Economics.

From the Alberta Dental Association, \$203.71 for furnishing the office of the Dean of Dentistry, and \$200 for a tape recorder for use in the Faculty.

From Mr. Claude Gallinger, a steer and calf to be fitted for the 1952 Royal Winter Fair.

From an anonymous donor, \$100 to be used as the President wishes.

From Mr. C. W. Wright, twelve zone fossils of the English Crenomanian for the Department of Geology.

From Mr. C. O. Nickle, two subscriptions to the Daily Oil Bulletin to the Department of Geology, as a memorial to Dr. R. L. Rutherford.

From the Museum of the University of Sydney, through Mrs. J. W. Scott, fourteen australites for the Department of Geology.

Through the District Superintendent of the Veterans' Land Act, \$50 in recognition of the contribution of the Faculty of Agriculture to a recent short course.

From the following members of the 1941 graduating class in Medicine, \$20 each to establish a loan fund for medical students: Drs. G. R. Blott, W. J. Cadzow, A. E. Caldwell, H. L. Dobson, J. W. Hunt, R. W. Kullberg, C. M. Megas, C. G. McNeill, N. W. Nix, J. F. Field, D. C. Ritchie, C. H. Smith, N. Woywitka, J. H. Young, W. A. Young; and \$40 from Dr. W. G. Lazaruk and \$100 from Dr. J. G. Kato; a total of \$440.

To establish the Frank Farley Bird Book Trust Fund, donations from the Calgary Brewing and Malting Co. Limited, \$250; Northwestern Utilities Limited, \$200; Mr. and Mrs. M. Scabar, \$100; Mr. L. B. Wilk, \$100; General Supplies Limited, \$100.

From the Class of 1952, a bust of Dr. W. A. R. Kerr by Mrs. O. J. Walker, to be placed in the Library.

From Mrs. Irene Gonsett, \$1,000 to expand the Library collection of books in Ukrainian literature and language.

From the College of Physicians and Surgeons, Alberta Division, a grant of \$300 for the Medical Library.

From the Alberta Division, Canadian Cancer Society, \$225.56 for books on cancer for the Medical Library.

From the Alberta Tuberculosis Association, a grant of \$50 for books on physical education.

From the Women's Auxiliary of the University of Alberta Hospital, \$50 for a set of Dickens.

From Dr. L. O. Beauchemin, \$25 for the purchase of French books for the Library at the Calgary Branch.

From Hon. Chief Justice G. B. O'Connor, a set of the Nuremberg Trials (42 volumes).

From Mr. Hugh Wallace, the collected papers of his father, the late J. N. Wallace, dealing with early topographical conditions in Alberta; from Dr. Heber Jamieson, books and journals on medicine and medical history in Alberta; from Mrs. Robert Newton, a collection of books on art; from Mrs. J. J. Anderson,

a portrait of the Hon. Frank Oliver; from Mrs. H. J. Cody, Whitaker's Alamanc, 1882-1951; from Mrs. H. H. Sharples, a rare Chinese book and a Chinese jade amulet.

From Dr. and Mrs. Robert Newton, 91 ornaments and 10 paintings to be added to the Emma Read Newton Collection.

From the Friends of the University, a total of \$1,211: \$100 from Mr. John Dower, \$100 from the Edmonton Journal, and \$1,011 from 104 other donors.

To the building fund of the Banff School of Fine Arts, through the Banff Foundation: a further contribution of \$5,000 from Mr. F. R. Graham, Vancouver; \$3,333.34 from an anonymous donor; \$2,500 from the Calgary Brewing and Malting Company Ltd.; \$2,500 from Mr. Frank McMahon; \$2,500 from Mr. George McMahon; \$2,000 from Canadian Western Natural Gas Company Ltd., Northwestern Utilities Ltd., and Canadian Utilities Ltd.; \$2,500 from Imperial Oil Limited; \$100 from Mr. Charles Cowan.

From the Edmonton Civic Employees Association, \$2,500 for equipment for the Dr. John S. McEachern Cancer Research Laboratory.

From the Canadian Cancer Society, Alberta Division, a grant of \$160,000 to build the Dr. John S. McEachern Cancer Research Laboratory.

Table VII.—New Scholarships, Prizes and Medals

From Mrs. Irene Gonsett, the R. R. Gonsett Scholarship of \$1,000, to be awarded on the basis of academic standing and financial need to a student of Ukrainian descent entering the first year of the course leading to the degree in Electrical Engineering.

From the California Standard Company, three annual scholarships of \$375 each for junior students in Geology, Engineering, and Physics or Geophysics respectively; and one annual scholarship of \$750 for a senior student or graduate for post-graduate study in one of these fields.

From the Socony-Vacuum Exploration Company, a \$500 scholarship for a student entering the fourth year of Petroleum Engineering, and a \$500 scholarship for a student entering the graduating year in Geology, both on the basis of outstanding merit in previous academic work.

From the Lane-Wells Company, a scholarship of \$500 for award to a student entering the fourth year of Petroleum Engineering, on the basis of outstanding merit in the work of the third year.

From the Alberta Dental Association, three annual bursaries or scholarships of \$200 each for award in the Faculty of Dentistry.

From the Alberta Wheat Pool, an increase in the scholarship offered in the first year of the School of Household Economics from \$150 to \$200, and two additional scholarships of \$200 each for award in the second and third years to girls attending the University who were previously members of the Girls' Garden Club projects.

From the Dominion Command of the Canadian Legion, B.E.S.L., the Canadian Legion Scholarship of \$400, for study in a degree program.

From the Hudson's Bay Company, an annual scholarship of \$300 for award to a student of outstanding merit entering the third or fourth year of the Honors History program or the third year of the History pattern in the Faculty of Arts and Science; also an annual prize of \$50 to a student of outstanding merit in the work of the second year of the School of Commerce.

From the Robert Tegler Trust, an increase in the Robert Tegler Research Scholarship from \$600 to \$900.

From Mr. J. C. Manning, an annual scholarship of \$250, to be known as "The Frederick Charles Manning Memorial Scholarship", for a second or third year student in the School of Commerce combining scholastic standing with an interest in extra-curricular activities.

From Mr. George Encil, the Adel Eisenschiml Scholarship in Music of \$200 annually, for students of the Banff School of Fine Arts.

From the Fuller Brush Company Limited, a scholarship of \$200 for award to a student in the Division of Painting, Department of Fine Arts.

From the Alberta Tuberculosis Association, a \$50 prize for an essay on health education by a third-year student in Physical Education; a \$75 prize for an essay on health education by a fourth-year student in Physical Education; two prizes of \$25 each for an essay on the teaching of public health by a student in the Temporary Licence course in the Faculty of Education.

From the family of the late Dr. R. D. Sinclair, the Robert David Sinclair Scholarship of \$100, for award in the first year of the Faculty of Agriculture.

From the University Women's Club of Calgary, a scholarship of \$100 for a woman student who has completed first-year Arts and Science at the Calgary Branch.

From the Harrison Medical Reporting Club, the Harrison Memorial Scholarship in Obstetrics and Gynecology of \$100, replacing the Harrison Memorial Book Prize.

From the Dental Alumni of the University of Alberta, the Dr. H. E. Bulyea prize of \$50, to be awarded annually to a third-year student for general proficiency in operative dentistry during his three years at the University; and the Dr. H. A. Gilchrist prize of \$50, to be awarded annually to a third-year student for general proficiency in full and removable denture prosthesis during his three years at the University.

From the Calgary Herald, an annual prize of \$50 for award to students at the Calgary Branch for outstanding merit in English 2.

From the Ketchum Manufacturing Company Limited, an annual prize of \$50 for a student in the Department of Animal Science.

From an anonymous donor, a prize of \$50 for a special student in the Faculty of Dentistry.

From the Association of Professional Engineers of Alberta, an increase in the H. R. Webb Memorial Scholarship from \$150 to \$200.

From the Education Society of Edmonton, an increase in the First Year Prize from \$25 to \$50.

From the students of the University of Alberta, the Lorne Calhoun Memorial Award, a silver shield and book prize of \$25 to a student who has made an outstanding contribution to student life and has attained a minimum of second class standing.

From Dr. L. O. Beauchemin, a prize of \$25 for the best student in French at the Calgary Branch.

From the Lord Lascelles Chapter, I.O.D.E., Lacombe, \$25 for award to Western Board of Music candidates of Lacombe and district.

From the Association of Professional Engineers of Alberta, a gold medal for the outstanding graduand in Petroleum Engineering.

From the Shell Oil Company of Canada, Limited, an increase of the Shell Oil Fellowship for Research from \$750 to \$900, plus \$250 for equipment and supplies.

From Northeastern Paper Products Limited, a fellowship of \$1,500 for a research project on the effect of waste sulphite liquor on soil characteristics.

Table VIII.—Staff Publications

Department of Agricultural Engineering

MacHardy, F. V., C. A. Cheshire, and R. P. Dixon. Dairy barns for Alberta. Joint Ser. Pub. No. 7. Univ. Alta. and Alta. Dept. Agr. 1952.

Department of Animal Science

Beacom, S. E., and J. P. Bowland. The essential amino acid (except tryptophan) content of colostrum and milk of the sow. *J. Nutr.* 45:419-430. 1951.

Clandinin, Dr. R., D. A. Brisbin, and A. R. Robblee. The basic amino acid content of properly-heated and over-heated soybean oil meal as determined microbiologically and chemically. *World's Poul. Congr. Rep.* 1951.

Clandinin, D. R., and A. R. Robblee. The effect of processing on the enzymatic liberation of lysine and arginine from soybean oil meal. *J. Nutr.* 46:525-530. 1952.

Fredeen, H., J. E. Bowstead, W. L. Dunkley, and L. M. Smith. See Department of Dairying.

McElroy, L. W. Cattle finishing in Alberta. *Univ. Alta. Bull.* 57. 1952.

O'Donoghue, J. G., and J. E. Bowstead. Report on Brucellosis and calfhood vaccination in University of Alberta herd. *Can. J. Comp. Med.* 15:161-168. 1951.

Staff. Thirtieth annual feeders' day report. *Press Bull.* June 1951.

Staff. Thirty-first annual feeders' day report. *Press Bull.* June 1952.

Department of Bacteriology

Stuart, R. D. A bacteriologist's attitude to antibiotics. *Alta. Med. Bull.* 16:23. 1951.

Carmichael, J. W. The pulmonary fungus *Haplosporangium parvum*, II, Strain and generic relationships. *Mycologia.* 43:605. 1951.

Department of Biochemistry

Chen, H. L., and H. B. Collier. The action of some hemolysis accelerators upon lipid and protein monolayers. *J. Gen. Physiol.* 35:17-22. 1951.

Collier, H. B. Factors affecting the hemolytic action of lysolecithin upon rabbit erythrocytes. *J. Gen. Physiol.* 35:617-628. 1952.

Collier, H. B., and R. P. Barschel. The adaptation of a photomultiplier photometer to the Beckman DU spectrophotometer. *Anal. Chem.* 24:1030-1031. 1952.

Collier, H. B. Alchemy of ancient China. *Chem. in Con.* 4:41-43. 1952.

Collins, R. A., A. E. Harper, M. Schreiber, and C. A. Elvehjem. The folic acid and B₁₂ content of the milk of various species. *J. Nutr.* 43:515-521. 1951.

Harper, A. E., R. M. Richard, and R. A. Collins. The influence of dietary cobalt upon the vitamin B₁₂ content of ewe's milk. *Arch. Biochem. Biophys.* 31:328-329. 1951.

Hoare, R., and J. Tuba. Human serum tributyrinase. III. Levels in cancer. *J. Lab. Clin. Med.* 38:613-616. 1951.

Madsen, N. B., and J. Tuba. On the source of the alkaline phosphatase in rat serum. *J. Biol. Chem.* 195:741-750. 1952.

Pfander, W. H., L. S. Dietrich, W. J. Monson, A. E. Harper, and C. A. Elvehjem. Sitrovorum factor, vitamin B₁₂, and folic acid activity of whole blood of several species. *Pros. Soc. Expt. Biol. Med.* 79:219-221. 1952.

Tuba, J. Serum tributyrinase levels in mice of the C₅₇C₃H, and A. strains. *Cancer Res.* 12:113-116. 1952.

Tuba, J., and M. S. Fraser. The effect of age, sex, and previous pregnancy on the oxygen uptake of rat mammary tissue. *Can. J. Med. Sci.* 30:14-17. 1952.

Tuba, J., and R. Hoare. Human serum tributyrinase. I. Normal human serum tributyrinase levels. *J. Lab. Clin. Med.* 38:308-312. 1951.

Tuba, J., and R. Hoare. Human serum tributyrinase. II. Levels in tuberculosis. *J. Lab. Clin. Med.* 38:428-432. 1951.

Tuba, J., and N. B. Madsen. The relationship of dietary factors to rat serum alkaline phosphatase. II. The effect of total food consumption, methionine, choline, and vitamin B₁₂ in normal and alloxan diabetic rats. *Can. J. Med. Sci.* 30:18-25. 1952.

Tuba, J., and J. D. Taylor. On rat serum lipase. III. The effect of total food consumption and of dietary hydrogenated vegetable fat. *Can. J. Med. Sci.* 30:26-35. 1952.

Department of Botany

Cormack, R. G. H. Separation of free-living cells. *Science.* 115:296. 1952.

Cormack, R. G. H. A note on the dormancy of tartary buckwheat seeds. *Sci. Agr.* 32:170-172. 1952.

Moss, E. H. Grassland of the Peace River Region, Western Canada. *Can. J. Bot.* 30:98-124. 1952.

Department of Chemical and Petroleum Engineering.

Elser, W. A., J. F. Langston, and J. W. Gregg. The Joseph Lake field. *Can. Oil and Gas Ind.* February 1952.

Govier, G. W. Chemical engineering education. *Chem. in Can.* 1:29. 1952.

Govier, G. W. Alberta natural gas. *Blueprint.* June 1951.

Govier, G. W. Proration in the Province of Alberta. *World Oil.* 3:134. 1952.

Quon, D., and G. W. Govier. Chemical utilization of natural gas. *Mimeo. Circ. No. 12. Res. Coun. Alberta.* 1952..

Department of Chemistry

Brown, R. K., N. A. Nelson, and J. C. Wood. Nitro and amino derivatives of dobenzothiophene. *J. Am. Chem. Soc.* 74:11165. 1952.

Sandin, R. B., and A. S. Hay. Stable bromonium and Chloronium salts. *J. Am. Chem. Soc.* 74:274. 1952.

Department of Civil and Municipal Engineering

Blench, T. Canals, channels and rivers. *In Civil Eng. Reference Book*, by Probst and Comrie. Butterworth, London. 1951.

Blench, T. Normal size distribution found in samples of river-bed sand. *Civil Eng.* February 1952.

Blench, T. Regime theory for self-former sediment-bearing channels. *Proc. Am. Soc. Civil Engr.* 77. 1951.

Blench, T. Regime theory applied to self-forming sediment-bearing channels. *Int. Assoc. Sci. Hydrology, Brussels.* 1951.

Department of Dairying

Dunkley, W. L. Hydrolytic rancidity in milk. I. Surface tension and fat acidity as measures of rancidity. *J. Dairy Sci.* 34(6):515-520. 1951.

Dunkley, W. L., and L. M. Smith. Hydrolytic rancidity in milk. III. Tributyrinase determination as a measure of lipase. *J. Dairy Sci.* 34(9):935-939. 1951.

Dunkley, W. L., and L. M. Smith. Hydrolytic rancidity in milk. IV. Relation between tributyrinase and lipolysis. *J. Dairy Sci.* 34(9):940-947. 1951.

Fredeen, H., J. E. Bowstead, W. L. Dunkley, and L. M. Smith. Hydrolytic rancidity in milk. II. Some management and environmental factors influencing lipolysis. *J. Dairy Sci.* 43:521-528. 1951.

Nelson, G. A., and H. R. Thornton. The lactic streptococci in Edmonton milks and creams. *Can. J. Tech.* 30:130-135. 1952.

Thornton, H. R. An objective for the Canadian dairy industry. *Can. Dairy Ice Cream J.* 30(8):29-30, 60. 1951.

Thornton, H. R., and D. H. McCallum. (Jointly with the Dairy Branch, Department of Agriculture, Edmonton.) A Canadian dairy policy. *Can. Dairy Ice Cream J.* 30(8):31-32, 60, 62, 64. 1951.

Faculty of Dentistry

Hamilton, W. Scott. The dentist and physician. *Alta. Med. Bull.* Nov. 1951.

Faculty of Education

Baker, H. S. Words and Ideas. I and II. Gage and Co. 1951.

Coutts, H. T., and J. W. Chalmers. Prose and Poetry for Canadians. Journeys. Adventures. Enjoyment. *J. M. Dent & Co.* 1951.

Coutts, H. T., and J. W. Chalmers. Landmarks. *J. M. Dent & Co.* 1951.

McDougall, W. D. The Commonwealth of Nations. 414 pp. Ryerson Press. 1952.

MacGregor, H. A. Education for the farmer. *Alta. School Trustee.* 22(3):19-23. 1952.

Smith, H. E. Teaching profession acts in Canada. *Phi Delta Kappan.* 33:1, 54-55. 1951.

Department of English

Godfrey, D. R. When Kings are Arming. Jonathan Cape. July 1951.

Salter, F. M. Shakespeare's use of silence. *Trans. Roy. Soc. Can.* 1952.

Scargill, M. H. Evidence of Totenism in *Edda* and *Saga*. *Am. Scandinavian Rev.* 40(2):146-150. 1952.

Department of Entomology

Hocking, B. Payloads and bee flight. *Can. Bee J.* 60(1):8-10. 1952.

Hocking, B., and W. R. Richards. Biology and control of Labrador black flies. *Bull. Ent. Res.* 43:237-257. 1952.

Hocking, B. Autolysis of flight muscles in a mosquito. *Nature.* 169:1104. 1952.

Hocking, B. Protection from northern biting flies. *Mosquito News.* 12:91-102. 1952.

Strickland, E. Additions to the list of Ichneumonoidea from Alberta. *Can. Ent.* 84:118-122. 1952.

Department of Geology

Folinsbee, R. E. Walmsley Lake sheet, map and descriptive notes. *Geol. Surv. Can. Prelim. Paper.* No. 1013A. 1951.

Warren, P. S. Some stratigraphic features of the Upper Devonian sequence of the Canadian western plains. *Proc. Athabasca Oil Sands Conf.* 46-54. 1951.

Department of Mathematics

Campbell, J. W. *A Manual on Catenary Calculations.* Edwards Bros., Ann Arbor. 1-40. 1951.

Keeping, E. S. A significance test for exponential regression. *Ann. Math. Stat.* 22:180-198. 1951.

Keeping, E. S., and J. F. Kenny. *Mathematics of Statistics, Part II.* D. Van Nostrand, New York. July 1951.

Keeping, E. S., and W. Happ. Statistics of the mean deviation meter. *Can. J. Phys.* 30:329-341. 1952.

Moser, L. A theorem on quadratic forms. *Proc. Am. Math. Soc.* 2(3):503-504. 1951.

Moser, L. On the different distances determined by "n" points. *Am. Math. Mon.* 51(2):85-91.

Moser, L. On the equation, $(n) - (n)$. *Pi Mu Epsilon J.* 177-180. November 1951.

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Table IX.—Student Registration

TOTAL REGISTRATION Full Session, Summer Ses- sion and Short Courses	Civilian			Rehabilitation			Totals											
	Male	Female	Total	Male	Female	Total	Male	Female	Total									
	50-51	51-52	50-51 51-52	50-51	51-52	50-51 51-52	50-51	51-52	50-51 51-52									
2365	2456	2585	2555	4950	5011	966	537	39	22	1005	559	3331	2993	2624	2577	5955	5570	
Add Cancellations:; Winter Session 91 137 Summer Session 66 137																		
6112 5844																		
1. Arts & Science																		
B.A.	76	92	115	91	191	183	10	8	2	...	12	8	86	100	117	91	203	191
B.Sc.	204	241	80	69	284	310	23	9	2	1	25	10	227	250	82	70	309	320
B.A., B.Com.	3	1	1	...	4	...	...	...	...	...	...	...	3	1	1	...	4	...
B.A., B.Sc. in Eng.	50	48	2	4	52	52	1	1	...	...	1	1	51	49	2	4	53	53
B.A., LL.B.	16	6	...	...	16	6	...	...	...	...	...	...	16	6	...	...	16	6
B.Sc., D.D.S.	101	48	7	1	108	49	2	1	...	...	2	1	103	49	7	1	110	50
B.Sc., M.D.	10	18	...	...	10	18	...	...	...	...	...	...	10	18	...	...	10	18
Pre-dental ....	...	2	...	...	...	...	...	1	...	...	...	1	...	2	...	...	...	2
B.Sc. after B.Ed. ....	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
B.A. after B.Ed.	460	456	205	165	665	621	36	20	4	1	40	21	496	476	209	166	705	642
Partiala	9	7	8	9	17	16	9	4	...	...	9	4	18	11	8	9	26	20
Calgary																		
B.A. ....	...	3	...	4	...	7	...	...	...	...	...	...	...	3	...	4	...	7
B.Sc. ....	...	18	...	...	...	18	...	...	...	...	...	...	...	18	...	...	...	18
B.A., LL.B. ....	...	6	...	...	...	6	...	...	...	...	...	...	...	6	...	...	...	6
Partiala ....	...	27	...	4	...	31	...	...	...	...	...	...	...	27	...	4	...	31
Partiala ....	...	1	...	2	...	3	...	...	...	...	...	1	...	2	...	2	...	4
Arts & Science, Full Time																		
460	483	205	169	665	652	36	20	4	1	40	21	496	503	209	170	705	673	
2. Agriculture																		
109	89	2	2	111	91	50	14	...	...	50	14	159	103	2	2	161	105	
Partiala	...	...	...	...	...	3	1	...	...	3	1	3	1	...	...	3	1	
3. Commerce																		
80	86	14	14	94	100	18	3	...	...	18	3	98	89	14	14	112	103	
Partiala	...	...	...	...	...	1	2	...	...	1	2	1	2	...	...	1	2	

Table IX.—Continued

	Civilian					Rehabilitation					Totals				
	Male		Female		Total	Male		Female		Total	Male		Female		Total
	50-51	51-52	50-51	51-52	50-51 51-52	50-51	51-52	50-51	51-52	50-51 51-52	50-51	51-52	50-51	51-52	50-51 51-52
4. Dentistry	49	75	2	3	51 78	65	43	...	...	65 43	114	118	2	3	116 121
5. Education	117	107	181	223	298 330	10	7	1	2	11 9	127	114	182	225	309 339
B.Ed.—4 yr. ....	...	...	...	...	...	11	4	2	...	13 4	11	4	2	...	13 4
B.Ed.—3 yr. ....	...	...	...	...	...	...	...	...	...	1	1	1	...	...	1
B.Ed. in Agr.	3	2	...	...	3	16	4	...	...	16 4	19	6	...	...	19 6
B.Ed. in Ind. Arts	11	6	7	9	18 15	20	8	1	...	21 8	31	14	8	9	39 23
B.Ed. after B.A., B.Sc., etc.	19	30	10	19	29 49	...	...	...	...	...	19	30	10	19	29 49
B.Ed. in Phys. Ed.	55	44	205	158	260 202	1	...	1	...	2	56	44	206	158	262 202
Temp. Licence .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Edmonton, Full Time	205	190	403	409	608 599	59	23	5	2	64 25	264	213	408	411	624 624
Partials	18	22	38	49	56 71	14	12	...	1	14 13	32	34	38	50	70 84
Calgary	17	13	35	30	52 43	...	...	...	...	...	17	13	35	30	52 43
B.Ed.—4 yr.	11	21	...	...	11 21	6	4	...	...	6 4	17	25	...	...	17 25
B.Ed. in Ind. Arts	1	1	...	...	1 1	...	1	...	...	...	1	2	...	...	1 2
B.Ed. after B.A., B.Sc., etc.	37	11	119	85	156 96	...	...	...	1	...	37	11	119	86	156 97
Temp. Licence .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Partials	66	46	154	115	220 161	6	5	...	1	6 6	72	51	154	116	226 167
Education, Full Time	12	8	23	34	35 42	1	1	...	...	1 1	13	9	23	34	36 43
Partials	271	236	557	524	828 760	65	28	5	3	70 31	336	264	562	527	898 791
6. Engineering	122	125	1	1	123 126	36	13	...	...	36 13	158	138	1	1	159 139
Civil	64	64	1	1	65 65	19	2	...	...	19 2	83	66	1	1	84 67
Chemical	59	51	...	...	59 51	37	6	...	...	37 6	96	57	...	...	96 57
Electrical	26	23	...	...	26 23	16	4	...	...	16 4	42	27	...	...	42 27
Mining	70	67	...	...	70 67	26	11	...	...	26 11	96	78	...	...	96 78
Petroleum	2	2	...	...	2 2	2	2	...	...	2 2	4	4	...	...	4 4
Irrigation	4	3	...	...	4 3	1	1	...	...	1 1	5	4	...	...	5 4
Eng. Physics	6	3	...	...	6 3	...	...	...	...	...	6	3	...	...	6 3
Eng. Geology	42	65	...	...	42 65	1	...	...	...	1	43	65	...	...	43 65
Not specified	395	403	2	2	397 405	138	39	...	...	138 39	533	442	2	2	535 444
Partials	2	5	...	...	2 5	5	7	...	...	5 7	7	12	...	...	7 12

7. Household Economics B.Sc., H.Ec. B.H.Ec.	...	68	56	68	56	68	56	68	56			
	...	6	4	6	4	6	4	6	4			
	...	74	60	74	60	74	60	74	60			
8. Law	70	77	3	5	73	82	69	34	69	34		
9. Medicine	93	140	10	12	103	152	109	67	4	3	113	70
10. Nursing Edmonton—B.Sc. Diploma Diploma Pub. Health Diploma in Teach. & Sup.	...	...	109	104	109	104	...	...	4	...	4	...
	...	...	131	161	131	161	...	...	...	...	...	...
	...	...	5	14	5	14	...	...	...	...	...	1
Calgary—B.Sc.	...	...	11	7	11	7	...	...	1	...	...	...
	...	...	256	286	256	286	...	...	...	...	...	...
	...	...	2	2	...	2	...	...	4	1	4	1
11. Pharmacy B.Sc. Partials	54	65	13	15	67	80	27	7	...	...	27	7
	...	...	...	1	...	1	3	2	...	...	3	2
12. Graduate Studies M.A. M.Sc. (Arts) M.Sc. (Agr.) M.Sc. (Eng.) M.Sc. (Pharm.) M.Sc. (Med.) M.Ed. Special Ph.D. B.D.	13	17	8	7	21	24	22	18	2	3	24	21
	28	22	3	3	31	25	18	6	1	...	19	6
	11	8	1	...	12	8	22	17	...	...	22	17
	8	11	...	...	8	11	13	5	...	...	13	5
	...	...	...	...	...	...	2	2	...	...	2	...
	3	2	...	...	3	2	1	...	...	...	1	...
	18	16	6	7	24	23	18	19	4	1	22	20
	25	13	4	7	29	20	8	8	...	...	8	...
	...	1	...	...	...	1	...	1	...	...	...	1
	8	15	1	1	9	16	4	5	...	...	4	5

	114	105	23	25	137	130	108	79	7	4	115	83
TOTAL FULL TIME STUDENTS	1695	1759	1161	1119	2856	2878	685	334	24	12	709	346
	...	...	3	2	3	2	...	...	...	...	...	...

13. Auditors	41	43	69	95	110	138	36	30	...	1	36	31
14. Partials	6	5	4	2	10	7	5	4	1	...	6	4
15. Specials	1742	1807	1237	1218	2979	3025	726	368	25	13	751	381
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Table IX.—Continued

	Civilian			Rehabilitation			Totals		
	Male 50-51 51-52	Female 50-51 51-52	Total 50-51 51-52	Male 50-51 51-52	Female 50-51 51-52	Total 50-51 51-52	Male 50-51 51-52	Female 50-51 51-52	Total 50-51 51-52
II. SUMMER SESSION									
Edmonton	523	562	1085	208	165	373	731	934	1665
Calgary	20	...	20	16	...	16	36	...	36
Banff School									
Univ. Credit	1	2	3	...	...	...	1	2	3
Non-Univ. Credit	64	77	141	...	...	...	64	77	141
	608	641	1249	224	165	389	832	806	1638
III. SHORT COURSES									
Diploma in Dairying	15	8	23	16	4	20	31	12	43
Adv. Practical Obstetrics .....	...	5	5	...	...	...	...	5	5
GRAND TOTALS	2365	2456	4821	966	537	1503	3331	2993	6324

Table X.—Distribution of Students According to Year of Birth, Sex, and Status as Rehabilitation or Civilian

Age	Rehabilitation			Civilian			Grand Total
	Male	Female	Total	Male	Female	Total	
15	....	....	....	....	1	1	1
16	....	....	....	4	4	8	8
17	....	....	....	57	98	155	155
18	....	....	....	182	261	443	443
19	....	....	....	278	263	541	541
20	2	....	2	304	189	493	495
21	1	....	1	283	137	420	421
22	2	....	2	247	62	309	311
23	2	....	2	167	44	211	213
24	9	....	9	118	26	144	153
25	36	....	36	47	19	66	102
26	44	1	45	21	9	30	75
27	46	1	47	12	9	21	68
28	47	4	51	9	7	16	67
29	37	....	37	7	9	16	53
30	30	1	31	6	5	11	42
31	38	....	38	6	5	11	49
32	16	....	16	4	3	7	23
33	11	1	12	7	5	12	24
34	9	....	9	4	5	9	18
35	10	....	10	3	8	11	21
36	9	1	10	4	5	9	19
37	3	....	3	4	5	9	12
38	1	1	2	2	3	5	7
39	1	1	2	4	4	8	10
40	3	....	3	1	7	8	11
41	4	....	4	4	5	9	13
42	2	....	2	1	4	5	7
43	....	....	....	3	2	5	5
44	2	....	2	4	3	7	9
45	....	1	1	3	3	6	7
46	....	....	....	2	2	4	4
47	1	1	2	2	....	2	4
48	....	....	....	1	2	3	3
49	....	....	....	1	....	1	1
50	....	....	....	4	1	5	5
51	1	....	1	....	....	....	1
52	1	....	1	....	....	....	1
53	....	....	....	....	....	....	....
54	....	....	....	....	....	....	....
55	....	....	....	....	....	....	....
56	....	....	....	....	....	....	....
57	....	....	....	....	1	1	1
58	....	....	....	1	1	2	2
59	....	....	....	....	1	1	1
	368	13	381	1807	1218	3025	3406

**Table XI.—Distribution of Students According to Home Address
and Birthplace, Session 1951-52**

	Home Address	Birthplace
A. British Empire—Commonwealth:		
(a) Canada		
Edmonton	1212	595
Red Deer	40	30
Vegreville	14	40
Wetaskiwin	20	27
Camrose	26	37
Others (on or north of Township 38)		1210
Calgary	738	391
Lethbridge	438	98
Medicine Hat	77	56
Cardston	30	38
Others (south of Township 38).....	15	13
	514	
	3124	2535
Alberta	1	
Newfoundland	2	10
Nova Scotia	1	2
Prince Edward Island		2
New Brunswick	4	15
Quebec	16	57
Ontario	18	96
Manitoba	147	367
Saskatchewan	59	87
British Columbia	11	3
Yukon and North-West Territories	3	8
Canada—not otherwise specified		
	3386	3182
(b) Other Parts of the British Empire—Commonwealth		
British Isles		55
Dominions	1	4
Crown Colonies	2	4
	3	63
B. Countries Outside the British Empire—Commonwealth:		
United States of America	5	48
Poland and Czechoslovakia	1	43
Russia and Ukraine		23
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey)		8
Scandinavian States (Sweden, Norway, Denmark, Iceland)		7
Germany, Austria	1	5
France		1
Hungary	1	3
China and Japan	1	5
Others	1	14
Not specified	7	4
	17	161
	3406	3406
Total.....		

Table XII.—Distribution of Students According to Pattern, Honors or Branch

ARTS AND SCIENCE	1st Year		2nd Year		3rd Year		4th Year		Partials		Total	
	50-51	51-52	50-51	51-52	50-51	51-52	50-51	51-52	50-51	51-52	50-51	51-52
Pattern—B.A.:												
English	17	15	11	11	11	13	...	...	...	...	39	39
Fine Arts	6	5	2	4	3	3	...	...	...	...	11	12
Foreign Language or Literature	5	6	7	4	10	8	1	...	...	...	23	18
History	2	5	11	4	4	13	...	...	...	...	17	22
Philosophy or Psychology	15	25	20	19	20	20	1	...	...	...	56	64
Political Economy	3	5	5	6	15	5	...	...	...	...	23	16
No Pattern .....	...	...	...	...	1	...	...	...	...	...	1	...
Pattern—B.Sc.:												
Chemistry	11	19	13	14	11	15	...	...	...	...	35	48
Mathematics	1	3	1	1	2	1 [†]	4	6
Physics	5	9	6	6	8	6	...	...	...	...	19	21
Geology	23	26	25	17	20	17 [†]	68	61
Botany	1	...	...	...	...	...	...	...	...	...	1	...
Entomology	2	1	3	3	...	3	...	...	...	...	5	7
Zoology	8	37	17	20	25	20	...	...	...	...	50	77
Special Biological	28	17	14	19	11	12	...	...	...	...	53	48
No pattern .....	...	12	...	...	1	1	...	...	...	...	1	13
Honors:												
Biochemistry	3	1	2	1	1	...	1	...	...	...	6	3
Botany .....	...	...	...	...	...	...	...	...	...	...	...	...
Chemistry	5	12	5	5	9	5	9	...	...	...	28	30
Classics	1	1	2	...	...	1	1	...	...	...	4	2
Conservation Biology .....	...	...	...	...	1	...	1	...	...	...	2	1
English	2	2	...	2	1	...	2	...	...	...	5	4
Geology	5	1	5	1	2	8	7	...	...	...	19	11
History .....	...	2	...	...	...	...	...	...	...	...	...	2
Mathematics	2	1	...	2	2	...	4	...	...	...	8	4
Modern Languages	3	6	7	2	1	3	4	...	...	...	15	13
Philosophy	1	...	...	...	...	4	...	...	...	...	1	...
Psychology .....	...	...	4	...	...	...	2	...	...	...	4	4
Physics	3	...	3	4	3	3	2	...	...	...	11	9
Political Economy .....	...	...	1	...	2	...	2	...	...	...	3	2
Business Administration .....	...	...	...	...	...	...	2	...	...	...	2	...
ENGINEERING:												
Civil	23	21	49	46	40	34	47	38	4	...	159	143
Chemical	*16	13	11	21	21	12	36	21	6	...	84	73
Electrical	*24	16	10	13	17	10	44	18	1	...	95	58
Mining	*8	3	10	6	8	9	16	9	1	...	42	28
Petroleum	*25	21	19	17	26	18	26	22	...	...	96	78
Irrigation .....	...	1	...	...	4	...	...	3	...	...	4	4
Engineering Physics	*1	...	...	...	2	2	2	2	...	...	5	4
Engineering Geology	*3	2	1	1	2	1	2	...	...	...	6	3
Not specified	42	65	1	...	...	...	...	...	...	...	43	65

[†]Plus 1 B.Sc. after B.Ed.

*Indicates intention only. All first year students in Engineering are registered in general course.

Report of Dean A. J. McCalla of the Faculty of Agriculture

During the past year, the Faculty of Agriculture maintained its work in the three fields of teaching, research, and extension. Most members of the Faculty have carried additional responsibilities that are not directly associated with their University positions. Many of these responsibilities arise as a result of the active research program carried on in most departments. It is possible to list only a few examples of such appointments or elections, but the general scope is indicated by the following: B. Hocking was appointed a member of the Entomological Research Panel of the Defence Research Board; J. E. Bowstead was President of the Canadian Society of Animal Production (Western Section); R. J. Hilton was President of the Western Canadian Society of Horticulture; B. T. Stephanson was Canadian representative on a committee on nomenclature for dairy housing of the American Society of Agricultural Engineers; J. Unrau was appointed one of three Canadian members of the International Committee of Wheat Genetics and Nomenclature; A. G. McCalla was appointed Chairman of the Prairie Regional Committee of the National Research Council.

As the number of students in our graduating classes decreases following the very large post-war classes, it is becoming increasingly difficult to fill employment demands. More serious still is the fact that capable graduate students are no longer available in sufficient numbers to carry on our normal research program under the best conditions. In addition to the immediate effect on research, this deficiency has serious long-time implications, since there is a steadily increasing demand for graduates with advanced specialist training.

Academic

Registration of undergraduates totalled 108, which again reflects a substantial decrease from the previous year. Twenty-six students registered in the first year but two withdrew early in the session. Thirteen of those who registered had graduated from the Schools of Agriculture, by far the highest proportion for many years.

The potential graduating class includes 37 students, just over half the number in last year's class. Of these, only nine are veterans, and this again is in sharp contrast to classes of the last few years.

Registration of graduate students in Agricultural departments decreased from 40 in 1950-51 to 26 this year. While prospects for the coming year in one or two departments are reasonably satisfactory, there is a serious general shortage, with little hope that any marked improvement can be expected during the next few years. Students who have taken graduate work here are well received in the outstanding graduate schools of the United States and Great Britain, and have maintained an enviable record in these schools. Many hold competitive scholarships or fellowships.

Research

The research program in the Faculty serves four main purposes. First, and probably most important, is the fact that such a program keeps staff members in close contact with new developments in every field of work; second, it is essential as a part of the training of graduate students; third, part of the program is in the field of fundamental research designed to extend our knowledge into new fields. It is impossible to separate these factors or to make any reliable estimate of the total value of the program. The work of most departments has been aided

extensively by research grants and materials from many sources outside the University. The assistance of the National Research Council, the Defence Research Board, and many commercial and industrial firms is gratefully acknowledged.

Much of the research done in the Department of Animal Science during the past year was a continuation of the projects briefly reported last year. Projects involving swine, lambs, feeder steers, chickens and turkeys have all been continued. Reference can be made to only a few of the results.

The feeding value of badly frozen wheat for both steers and pigs has proven to be almost as good as that of grain of the top feed grades. This has, of course, important implications for western Canada, since in years like 1950 and 1951 relatively large quantities of such wheat are available.

Exploratory work has been started to study possible effects of herbicides on the feed value of forage crops. With the use and variety of these chemicals increasing every year, it is quite possible that some residues of the chemicals will be carried by the harvested forage. These might have adverse effects on the stock to which the forage is fed.

Most of the poultry projects mentioned last year have been continued. A new major study of the factors affecting the hatchability of turkey eggs has recently been started.

Protein supplements play an important part in most animal rations. Work by the Poultry Division has shown that the methods of processing such supplements has an important influence on the value of the supplement.

The Department of Dairying completed the high-temperature short-time pasteurization studies. As a result of this work, some commercial pasteurizers of this type are undergoing design modification. Other investigations in this Department included work on lactic acid streptococci in Edmonton milk and creams, seasonal color valuations of Alberta butterfats, and butter studies initiated at the request of the Defence Research Board.

The Department of Entomology has made good progress on the insect flight studies mentioned last year. Preliminary publication is expected this year on work done on the structure and armature of ptilina in Diptera. Professor E. H. Strickland was elected a Fellow of the Entomological Society of America.

Research in the Department of Plant Science was continued in all fields. Emphasis continues to be on fundamental research, although many projects have practical aspects. Perhaps the outstanding development in the research program is the number of students who have applied to carry on graduate work at the doctorate level. One European student was attracted by the work being done on alfalfa and brought with him some valuable experimental material.

Breeding work on wheat, barley, and oil-seeds crops was continued. The work with wheat and the associated cytological studies has attracted international attention. The barley work has progressed well with preliminary studies on inheritance to loose smut being successfully concluded, and that on inheritance of earliness being brought to the final stage.

Studies on oil-seeds crops have been materially extended. There is urgent need for new sources of vegetable oils, particularly edible oils. Breeding and testing work with sunflowers and safflowers is hoped to yield results that will permit production of these crops in commercial quantities. Quality studies on oils are also being initiated.

Horticultural investigations included continuation of most projects mentioned last year. The growing season was much more favorable than either of the two preceding, and excellent progress was made on the co-operative fruit-breeding project. Work on the effect of growth-regulating chemicals on vegetable crops was extended.

Fundamental and practical research in the field of herbicides and hormones has been continued and extended. Work on the effects of various chemicals on development, maturation, sugar-content, and hardness of parsnips, carrots, and sugar beets has been initiated and has created considerable interest. The use of chemicals for defoliating legumes grown for seed continues to be promising.

The use of antibiotics in the control of cereal diseases has been further studied. Effective control of covered smut of wheat and oats has been achieved. A new organic fungicide from the United States was investigated and the results of work in this Department played a substantial part in proving its value. It has been confirmed that seed treatment of damp grain may improve germination when some organic fungicides are used.

The very bad harvest conditions of 1951 provided an opportunity to get information on the effects of overwintering of wheat in stooks, in swaths, and as standing grain, on the quality of the grain. A co-operative study with the University of Saskatchewan and the Board of Grain Commissioners Laboratory at Winnipeg has been initiated.

The Department of Soils has continued studies on fertilizers, rotations, soil erosion, soil microbiology, and soil surveys. Some of these were discussed last year.

An increasing problem under present methods of harvesting and tilling concerns the large quantities of straw left on the field. It is very poor practice to burn this straw, and a program of research is under way in the expectation that improvements in the utilization of straw may be developed.

The water erosion studies mentioned last year have already yielded results important enough to warrant preliminary publication.

This spring experimental work on the irrigability of solonetzic soils of the proposed Red Deer irrigation project will be undertaken with financial assistance from the Research Council of Alberta.

This necessarily incomplete account of research shows that the over-all program in the Faculty covers many fields and is of interest and value in many ways.

Extension and Public Relations

As usual, members of the Faculty took part in a wide variety of extension activities, through radio talks, meetings, field days, correspondence, publications, and personal interviews. The direct contact with hundreds of farmers at field days is probably the most satisfactory type of extension activity, but it is realized that all forms give contacts and, we hope, render valuable service. Direct contact is also established at seed fairs and short courses.

The thirtieth annual Feeders' Day at the University Farm was attended by approximately 800 visitors. This event draws farmers and feeders from all over the province and is the largest single event in our extension work. Four thousand copies of the Press Bulletin covering Feeders' Day reports were printed and distributed.

The Soils' Field Day at Breton in July drew a crowd of over 300 persons. The

Breton plots constitute one of the most valuable long-term experimental and demonstration features of the Faculty.

Visitors' Day at the Department of Plant Science in early August was attended by 300 people. The Department Press Bulletin was published in January. It summarized much of the preceding year's results and included information of timely value to farmers.

Several members of the staff assisted at field days and demonstrations put on by the Provincial Department of Agriculture. Special mention should be made of the contribution of Mr. MacHardy of the Department of Agricultural Engineering.

The Agriculture students joined forces with other faculties in staging Varsity Guest Week-end. The Agriculture and Household Economics displays and demonstrations for high school students were attended by about 2,600 young people and adults. This program has now become established and will, in future, be handled by the students in general rather than by one or two groups.

This report, based on departmental annual reports, must be somewhat limited in scope. It is meant to give as complete a picture as possible of the work of the Faculty. It is a pleasure to submit it on behalf of all Faculty members.

Report of Dean John Macdonald of the Faculty of Arts and Science

There follows a summary of departmental reports.

Botany—Dr. Moss reports that during the year an aerobiological survey, supported by a Federal Public Health Research Grant, has been completed and a full report submitted. An extensive investigation of the vegetation of northwestern Alberta is being brought to fruition in the form of two papers recently published. Two additional papers are being prepared.

Chemistry—Dr. Walker reports a drop in registration to some extent due to the changed requirements in Medicine and Dentistry and to the drop in registration of third and fourth year students in Engineering and Science. There is also a drop in the number of graduate students, which is to some extent hampering the research work of the members of the Department. All members of the department are engaged in active research.

Classics—Points of special interest are: (1) Dr. Hardy was invited to give two papers at the Language Conference at the University of Kentucky. (2) Dr. Johns continues to act as Chairman of the Humanities Association of Alberta and Chairman of the Committee of Grants-in-aid to Research of the Humanities Association. (3) Miss MacKenzie is spending the spring and summer attending two terms in the Graduate School at Stanford University with a view to completing her master's work in Classics. (4) Two honors graduate students in Classics were awarded fellowships, Miss Emily Marie Spence, to Bryn Mawr, and Mr. Robert Buck, a teaching fellowship to the University of Cincinnati.

English—The following points in Professor Salter's report are of special interest: (1) Through the co-operation of Miss Sherlock, the Department has been able to make good use for the first time of the Music room and Film Projection Room in the Library. (2) English 5 has been reconstituted and turned into a course specially suitable for B.Sc. students and students from other Faculties who need a course in English. (3) A special class was organized for displaced persons and others of foreign extraction. This class was operated under Mr. Zytaruk and

to date has given good results. (4) The Department is planning a systematic attack on the problem created by speech defects and bad pronunciation among students. Dr. Scargill is planning to make a special study of this problem at Michigan during the summer.

Fine Arts, Painting—Professor Glyde reports a very successful session. This division again contributed substantially towards Extension work and also provided the usual Art exhibits.

Fine Arts—Mr. Eaton reports a very satisfactory session with good attendance in Music courses. To further the extension work, Miss Jocelyn Rogers was appointed on November 1, 1951. The Mixed Chorus has again had a very successful session with one summer and four winter productions. One of the plays is being taken on tour to the Peace River District in early May.

Geology—Dr. Warren reports that, in spite of some drop in student enrolment, the close affiliation which the Department has found it desirable to maintain with the developments in the Alberta oil fields has resulted in time-consuming and often exacting work on the part of the staff. The demand for graduating students in Geology far exceeds the supply with the result that students are occasionally offered highly paid positions before they have properly qualified themselves for these positions.

Philosophy and Psychology—On the Philosophy side, I may report that Professor Mardiros delivered a paper on "Logic and Ethics" at the Annual Meeting of the Pacific Division of the American Philosophical Association at the University of British Columbia, September 7, 1951. He has also been invited to give a paper to the Western Division of this association at the University of Michigan, May 9, 1952, on the subject: "Is a Science of Aesthetic Criticism Possible?" On the psychology side, experimental work is continuing. This side of the department also provided during the session for certain courses delivered under the auspices of the Department of Extension.

Physics—Dr. Grayson-Smith reports that the new laboratory has greatly increased the efficiency of handling large elementary classes. Research is being continuously carried on with all members of the department participating. Dr. E. H. Gowan has been absent on sabbatical leave and, during his absence, two students have been carrying on his work on solar radiation problems. Dr. Gowan presented a paper at the international conference on the Upper Atmosphere at Brussels, presenting results of his research work so far.

Political Economy—No projects have been completed during the year but it is expected that the project on the Provincial Government will be in its first draft stage by next fall. Two new projects are being started in May, 1952. Three members of the department, Dr. Mayo, Mr. Hanson and Mr. Whelan, are preparing papers on the Provincial Government for the meeting of the Canadian Political Science Association in June, 1952.

Zoology—Dr. Rowan reports a drop in the total number of students but there are four students working on M.Sc. theses in the department. Dr. Clare and Dr. Rowan gave extension courses in the Fine Arts department on color and on anatomy respectively. Dr. Miller and Dr. Rowan again lectured to the Dominion Ranger School at Banff and to the Provincial School at Kananaskis. Dr. Miller presented a paper to one of the meetings of the Canadian Committee on Research in Aquatic Biology held in Ottawa in January. He also attended the meetings of the Advisory

Committee on Whitefish Infestation in Winnipeg in April. Dr. Rowan presented a paper to Section V of the Royal Society of Canada in Montreal in June. Dr. Miller has been elected Chairman of the Canadian Committee on Freshwater Fisheries Research as well as Chairman of the Scientific Advisory Sub-Committee of the Advisory Committee on Whitefish Infestation. He has also been appointed Director of the Biological Station at Gorge Creek.

Report of Professor Andrew Stewart, Director of the School of Commerce

Excellent employment opportunities were open to graduates in Commerce, and placement was facilitated by the work of the National Employment Service and the Employment Committee of the Commerce Club. The majority of the graduating students planned to article toward professional accountancy.

As in other years close liaison has been maintained with the Institute of Chartered Accountants through the work of the Board of Review and through co-operation in research projects. Professor Campbell is a member of the Research Committee of the Canadian Institute of Chartered Accountants.

Co-operation with the Registered Industrial Accountants has continued through the program of evening classes and in connection with the Society's examinations.

Members of the staff have participated in the Short Course for Purchasing Agents and in the School of Business Administration organized under the Banff School of Fine Arts.

Members of the Department of Accounting have continued their research in the field of financial business analysis.

Report of Professor Mabel Patrick, Director of the School of Household Economics

The demand for dietitians, teachers of Household Economics, and district home economists still exceeds to supply. Of the senior class, twelve students have accepted student training appointments.

A half-year course in Institutional Management has been added to the curriculum to meet the requirements of the Canadian Dietetic Association.

Two members of the Department of Household Economics conducted sewing classes under the Department of Extension. The registration and attendance in these courses are gratifying.

Report of Dean W. Scott Hamilton of the Faculty of Dentistry

During the past year 122 students were enrolled in the faculty, four of whom were Displaced Persons, three from Latvia and one from Lithuania. These four are on a special program and their instruction in some instances extends over three years of the regular course of studies.

Dr. Samuels of this faculty is spending the year in graduate study at Tufts Dental School, Boston. Dr. Van Alstine is completing his second year of a three year course at the University of Michigan, in preparation for a proposed appointment to the faculty. Both these men are on Kellogg Foundation fellowships.

Various members of the faculty have served in provincial and national capacities. Dr. H. R. MacLean is an elected member of the Board of the Alberta Dental Association and as well serves on the sub-committee of the National Research Council. Dr. J. D. McLean is chairman of the Committee on Ethics of the

Canadian Dental Association, and a pamphlet has recently been published by the organization which is the result of his work.

Dr. K. A. McMurchy returned to the faculty in September 1951 after a year of graduate study at Columbia University.

Dr. A. C. Lewis, chairman of the Survey Committee of the Canadian Dental Association, spent three days with us in January of this year. The report of the Survey Committee was considered by all those giving instruction to dental students, and many helpful suggestions were presented.

Our Caries Control Laboratory is functioning as a research project, and as well provides service to the public through the practitioners.

Report of Dean H. E. Smith of the Faculty of Education

The several teacher-training programs, revised in 1949-50, have in the main proved satisfactory. No more than minor adjustments have been found necessary this year. Candidates training as secondary school teachers enjoy a wide variety of options from the Faculties of Arts and Science and of Agriculture. The choice of courses suitable for the elementary teachers is much more limited. It is hoped that a course in Children's Literature and at least one course in Geography will become available in the near future.

In spite of the considerable distance of the Education Building from the center of the campus, Education students have participated extensively in extra-curricular activities, and in addition have developed a number of excellent programs of their own.

Faculty members have, as usual, co-operated extensively with the Department of Education, serving on many boards and committees, notably on examination and curriculum committees. A considerable amount of extension work has been done through Home and School Associations, teacher conventions and institutes, and through the School Trustees' Association.

Report of the Division of Elementary Education

Practice teaching facilities were provided this year in sixty city elementary classrooms and forty-two rural classrooms. The Division is indebted also to the eight demonstration teachers for their steady co-operation. Two one-day institutes for practice teachers were held at the Education Building for discussion of teaching problems.

A sociological study was undertaken by Mr. Card in West Jasper Place with the assistance of his students in Education 314. The City Planning Commission co-operated.

Mr. W. E. Hodgson was graduated with a Master of Arts degree from the University of Minnesota at its fall convocation.

Professor W. D. McDougall has received the first copies of his new book, *The Commonwealth of Nations*, published this year by the Ryerson Press. The book has been authorized for use by the Department of Education for Alberta and Ontario.

Report of the Division of Secondary Education

Dr. H. S. Baker has written two language books titled, *Words and Ideas*, Books I and II. These books, printed by Gage and Company, have been authorized

for use in grade seven and grade eight in Alberta schools, and have been approved for use in Ontario.

In conjunction with Dr. Chalmers, Dr. Coutts has edited for J. M. Dent and Company, three literature anthologies in a series titled, *Prose and Poetry for Canadians*. The individual books are, *Journeys* (grade seven), *Adventures* (grade eight), *Enjoyment* (grade nine). These books have been authorized for use in grades seven, eight and nine of Alberta schools, and two of them, the *Adventures* and *Enjoyment* books have been approved for use in Protestant schools of Quebec. Dr. Chalmers and Dr. Coutts have written a teachers' guide book titled *Landmarks* to accompany the anthologies mentioned above. They have also produced three student workbooks, *My Literary Log*, *My Literary Chronicle*, *My Literary Diary*, to accompany the same series of anthologies.

All of the staff of the Division of Secondary Education are members of Department of Education curriculum committees and subcommittees, and have been generous in giving their time in this important work.

Mr. Walker is preparing a chapter on educational development under the Social Credit government as a contribution to a larger study being made under the leadership of Dr. Mayo.

Report of the Division of Educational Psychology

The Education Clinic—For the second year the Clinic accepted all referrals of children presenting special difficulties from the Edmonton Public Schools, the Edmonton Separate Schools, and from the rural superintendencies adjacent to the city. The summary of clinic cases for 1951-52 follows:

Reading	29
Other Subjects	4
Vocational Guidance	37
Personality Problems	13
Speech	5
Reading Readiness	2
	—
Total	90

In addition the Clinic gave individual tests of intelligence to forty-six children in the University Elementary School.

A special study was made of the intelligence of thirty-four feeble-minded children in opportunity rooms of the city. This study will be continued next year. It is designed to compare the usefulness of the Stanford-Binet Individual Test and the Wechsler Intelligence Scale for children, both being individual intelligence tests.

This year the Clinic travelled to Wetaskiwin and Red Deer in order to demonstrate modern clinical and guidance procedures to the guidance departments of the two school systems. The Department of Education co-operated to the extent of providing a secretary for the Clinic, and the Director and Assistant Director of Guidance for the Province attended these two-day visits. A special feature of each visit was the conferences of the Clinic staff with the teachers of the elementary, junior high, and senior high school staffs.

Two superintendents of schools have now requested this Division to organize surveys for the detection of retarded readers and to plan progress of remedial measures. This work is now in hand.

Report of Dean R. M. Hardy of the Faculty of Engineering

While the total registration is now only fifty per cent of the peak registration during the session 1947-48, it is substantially larger than the average registration in the 1930-40 period. The employment opportunities for both graduating and undergraduate engineering students are exceptionally good, particularly in the Alberta area. The concern that has existed during the past few years that the excessively large numbers of young engineers graduating from the Canadian universities could not be absorbed satisfactorily into the economy of the country has proved to be unwarranted. The demand for graduates in all branches of engineering this year considerably exceeds the supply in this area. Moreover if industrial activity continues at its present level for the next few years, there is every indication that the severe shortage of young engineering graduates will continue. It is particularly unfortunate that the wide opportunities for graduates in mining engineering are not generally recognized by young men entering the Engineering Faculty.

Instruction at the graduate level has continued in each of the four engineering departments.

The senior member of the staff in the Mining Engineering Department continues as supervisor of research on the Athabasca oil sands project of the Alberta Research Council. Work on an ore-dressing problem concerned with the concentration of uranium ores was undertaken under a substantial grant from the National Research Council.

In the Department of Chemical Engineering research programs on "The Determination of the Rheological Properties of Certain Clay-Water Slurries", "Gas-Liquid Flow in Vertical Pipes", "Rheological Properties of Selected Alberta Crude Oils", "A Potentiometric Petroleum Reservoir Analyzer", "A Semi-Pilot Plant Evaluation for Carbon Black from Natural Gas" and "The Partial Oxidation of Butane" were continued. The last two of these were part of the Utilization of Natural Gas Project of the Alberta Research Council, and one other project was financed under a fellowship provided by the Interprovincial Pipeline Company.

The Department of Civil Engineering, in co-operation with the petroleum industry and the Extension Department of the University, continued to service the petroleum industry with short courses and advisory services in connection with the Joint Canadian Association of Oil Well Drilling Contractors and University Supervisory Training Program. Short extension courses were again offered to the Petroleum Industry and continued to be exceptionally well received.

Research work continued in the Civil Engineering Department on a number of projects. Two major Industrial Development Fellowships to the amount of \$1,500 and \$2,000 were made available for graduate work in the field of soil mechanics. Work was continued on the project entitled "Cut-Out Research" dealing with the stress distribution around large openings in thin aircraft structure plates. This project was financed through a grant from the National Research Council. The senior member of the Civil Engineering Department acted as chairman of the committee set up by the Canadian Good Roads Association to report on the feasibility of a highway research institute operating on a national basis and financed jointly by industrial and government organizations.

Three extension courses were sponsored by the Civil Engineering Department in co-operation with the Extension Department. These were concerned with Sanitary

Engineering, a short course for Land Surveyors and a short course in Soil Mechanics. The latter was provided at the request of the R.C.A.F. and attendance was primarily confined to their personnel.

Specialized technical service to industry was conducted by all four Engineering Departments, with the major services being provided by the Civil Engineering Department. Relations between Industry in the Province and the Engineering Faculty have continued on a most satisfactory basis. It is gratifying to record an increased interest on the part of Industry in the support of the activities of the Faculty at the graduate level.

Report of Dean W. F. Bowker of the Faculty of Law

Enrolment

The number in the graduating class is forty-four. This is second only to last year's record class of fifty-six, largest in the history of the Faculty. With thirty-three in second year and thirty-nine in first, it appears likely that the number entering each year will remain between thirty and forty.

Employment of Graduates

A graduate wishing to become a member of the Alberta Bar must spend a year under articles in the office of a practitioner. In the past three or four years, most if not all other provinces have had more graduates than they could absorb. Fortunately, this has not been the case in Alberta. Every graduate has found an office in which to article. Moreover, numbers from other law schools have come to Alberta to article. Nearly every member of the 1952 class is placed in an office. The Faculty's unofficial placement bureau is of help to the students and to those solicitors who want to engage a student. The number of students whose articles are almost completed is around seventy-five, which is probably a record. It is to be hoped that many of them will go into practice in smaller centres in the province where the need for general practitioners has not been met. Many of the public and even of the legal profession still think that the profession is "overcrowded" and that our present classes are too large. This is a profound error. It would be regrettable if our classes were to shrink to the size of pre-war classes.

Library

When the session began the John Weir Memorial Law Reading Room in the new Rutherford Library was opened. The students made great use of the fine quarters. For the first time in the history of the Faculty the students had the services of a librarian. Filling this post is Mr. Mills Shipley, a graduate of this law faculty and a qualified librarian. The students have complete access to the law stacks. The usefulness and efficiency of the law reading room is increased manifold. There have been a large number of accessions in recent years and before long the Faculty should have a good working library. The move into the new reading room brought the law students under discipline and restraint for the first time. Some minor problems arose. They have been settled.

Special Talks to Students

For a number of years one or two special talks have been arranged for the students. This year, with the spacious lounges in the Students' Union Building available, these talks were expanded. All were of a high calibre, well attended,

well received and of much value. Five were related to oil and gas law, and the other three to different aspects of the practice of law.

Research

Although no article was published during the session, three of the four members of the staff are engaged in preparing theses in partial fulfilment of the requirements for graduate degrees. It is expected that by another year or so the staff will begin to make greater contributions by way of articles in legal periodicals.

Law Society of Alberta

Following the custom of recent years the Dean addressed the Annual meeting of the Law Society of Alberta in January. In addition, Assistant Professor Reed presented to the meeting a paper on Administrative Law. The Dean attended the June 1951 convocation of the Benchers of the Law Society on their invitation. Matters of mutual interest were discussed. In addition, he continued the practice of attending the annual meeting of the Canadian Bar Association and took an active part in various sections including the section on Legal Education and Training. In addition, he was chairman of an Alberta Committee of that body to study the subject of practical training. In that capacity he prepared and sent out a questionnaire to two hundred members of the bench and bar in Alberta and prepared a report on the results. This report has gone forward to the Law Society of Alberta.

Report of Dean J. W. Scott of the Faculty of Medicine

Enrolment in the four undergraduate years of the medical course has been gradually increased during the past few years and is now very near the point where the limitations imposed by the present physical plant are operative.

The number of applications for admission to first year Medicine is still large but, by stretching its accommodations to admit 58 first-year students, the Faculty was able to accept all qualified Alberta applicants in September 1951. It was necessary, however, to refuse admission to many qualified applicants from outside the province who wished to enter first-year Medicine. Six students from the University of Saskatchewan were admitted to the third year. Two students, one from the British Isles, were admitted to the third-year class to fill vacancies caused by withdrawals.

With the gradually increasing enrolment, teaching and administration continue to be the major activities of the staff of the Faculty. In some departments, especially in those at the pre-clinical level, it is becoming increasingly difficult to secure qualified personnel to fill staff vacancies.

The Faculty of Medicine suffered grievous loss in the death of Dr. Walter H. Scott, Honorary Clinical Professor of Medicine.

The clinical departments have been strengthened by the appointment of the staff of several young physicians with special training in their respective fields.

Both clinical and pre-clinical departments encourage and assist students in graduate training. In the departments of Anatomy, Bacteriology, Biochemistry, and Physiology, thirteen students worked toward the degree of M.Sc. Two graduate students from the University of Saskatchewan and the University of Manitoba are working under direction in the Department of Biochemistry toward the degree of Ph.D.

In nearly all departments a wide variety of research problems engaged the attention of the members of the staff and reflected the breadth of their interest. Financial support for this work was provided by grants from the Medical Research Fund of the University, the National Research Council of Canada, and the National Cancer Institute of Canada. Particularly gratifying was the increase in clinical research. Two research beds in the University of Alberta Hospital, supported by the Alberta Cancer Society and the Kinsmen Club, have assisted in furthering this work.

Sod was turned and great progress was made in the construction of the Dr. John S. McEachern Cancer Research Laboratory. This two-storey structure connected with the Medical Building is being built with funds provided by the Alberta Cancer Society and will provide accommodation for research projects whose object is to further knowledge of cancer. Direction of the Laboratory is in the hands of a Committee under the chairmanship of Dr. R. F. Shaner.

During the session a trimester system was introduced in the final year in order to facilitate assignment of students to the teaching hospitals as clinical clerks. In this manner final-year students had greater opportunity to gain practical experience in all of the various fields of Medicine and were introduced to the conditions and type of work which would face them as interns.

The annual Refresher Course was presented during the week of March 24-28, at the University and the University of Alberta Hospital. Two hundred and seventeen practising physicians, of whom ninety-eight were from rural points, took advantage of the course.

On November 7-9, the Faculty was host to Sir Edward and Lady Mellanby. Sir Edward spoke before the assembled medical students and before a public meeting of the Collip Research Club. His lectures were interesting and inspirational. The value to both staff and students of the visits of outstanding scientists cannot be overemphasized.

Report of Professor H. E. Penhale, Director of the School of Nursing

One of the major issues facing nursing education today is that of deciding the kind of education needed by nurses. The types of personnel giving nursing and related services in the community are increasing, yet there still remain many omissions in the total-care plan. During the past year a number of revisions were made in the various curricula in order that each program would more nearly meet the needs of the group.

The one-year postgraduate curricula were evaluated with the object of removing from them content which the student could be expected to have mastered in the basic course. Methods of teaching were changed in order to familiarize the student with those used in progressive education. Further revision in the field experience program is contemplated.

Students in the undergraduate program were given the opportunity to study under the block system. In this plan, students are assigned to the classroom from three to six weeks. During this time they learn the theory of nursing in medical, surgical and orthopedic conditions. In order that they see some of the conditions discussed in the classroom, thereby making learning more meaningful, they are assigned to the various clinical services for two hours of each study day. The plan has proven to be very acceptable to the students and instructors.

The proposed four-year program leading to the degree of Bachelor of Science in Nursing was revised in the light of current findings in nursing research. It is believed to be sound both professionally and academically to integrate the sciences and the humanities throughout the entire course. The student will spend the first calendar year studying the biological, social and health sciences—background information practical for nurses. During the second and third year the students will receive instruction in nursing and guided experience in clinical practice. The fourth year will be devoted to the study of public health nursing and/or clinical teaching and supervision.

To meet the needs of the graduate nurse who wishes to qualify for the degree of Bachelor of Science in Nursing, a two-year program has been proposed.

The members of the staff continue in their efforts to meet the needs of nurses and nursing. Refresher courses on "Improving Nursing Care" were conducted in Lethbridge and in Edmonton. A short course in Hospital Administration for the matrons of small hospitals was conducted at the School during the month of February. Four courses in The Nursing Aspects of Atomic, Bacterial and Chemical Warfare have been conducted. Home Nursing was again offered for Farm Young People. The Director of the School was afforded the opportunity of participating at a conference held in Toronto for representatives of the fifteen Canadian University Schools of Nursing. Assistance was given the University of Saskatchewan in reorganizing the nursing programs to be offered at that university.

During the past year considerable thought and study have gone into a means by which the licensing examinations for nurses could be improved. In April, 1952, the National League of Nursing Education registered nurse test pool papers were used for the first time. Since the results of these examinations are not yet available, no conclusions as to their effectiveness can be drawn.

Student enrolment continues to increase. In 1950 the total enrolment numbered 258, whereas in 1951 there were 279.

During the coming year continued reorganization of the administrative set-up of the School is contemplated.

Report of Dr. M. J. Huston, Director of the School of Pharmacy

Academic

Three years ago a series of course changes was made necessary and desirable by the elimination of the two-year diploma course. This session the changes reached the third year of the course. It would appear that the present arrangement with concentration of professional courses in the senior year works very well.

Two students completed the requirements for the M.Sc. degree in the department and continued their studies in the United States. During the semester six of our graduates have been carrying on work towards the doctorate degree at other institutions. When staff members are included there would be a total of nine graduates undertaking such work.

Extension

The School handled the arrangements for the meeting of the Canadian Conference of Pharmaceutical Faculties at Mount Royal College in Calgary in August.

Four bulletins dealing with current advances in pharmacy were prepared and distributed to the pharmacists of the province. In addition many problems have been referred to the School by practising pharmacists.

Dr. Huston took part in the refresher course of the Saskatchewan Pharmaceutical Association.

An innovation this year was the introduction of an "Interns' Night", at the School to which the interns of Edmonton and district were invited. Forty-five interns and preceptors attended, several from points some distance from the city. Talks by staff members and officials of student organizations were presented and a tour of the department conducted.

During the year Dr. Huston gave twenty-one talks to service clubs, professional societies and similar groups. Mr. Murray and Mr. Anderson also presented papers.

Research

This department collaborated with Dr. R. B. Miller of the Zoology Department in research on the in vitro cultivation of tape worms.

Other problems being investigated included the action of cardiac glycosides on the isolated diaphragmphrenic nerve preparation of the rat; the titrimetric assay of barbiturates; and the use of the centrifuge in evaluation of suspending and emulsifying agents.

Report of Dr. A. L. Doucette, Director of the Calgary Branch

The most recent and the most important event in the life of the Calgary Branch was the addition of the Arts and Science Faculty in the fall of 1951. The Board of Governors and the Provincial Cabinet granted permission to the Calgary Branch to offer the first year of the B.A. and B.Sc. programs, the first year of courses leading to the degree in Law, Medicine, and Dentistry, and the first year of the course in Nursing. The Calgary Branch is now a two-Faculty institution, consisting of branches of the Faculties of Arts and Science, and of Education in Edmonton.

Open House was held on January 28-29 when the parents and Grade Twelve students of the City were invited to inspect the premises at the Branch. Upwards of twelve hundred people attended. President Stewart was present for this function.

Evening Classes for adults under the direction of the Extension Department were instituted for the first time at the Calgary Branch. The following classes were offered: Commercial Law, Building a Home, Financial Statement Analysis, Landscaping the Small Lot, Canada and World Affairs, Business Finance. About three hundred students were enrolled.

Late afternoon classes for credit are taken advantage of mainly by city teachers. Most enrolments are in Arts and Science courses. This year the following credit courses were offered in the late afternoon: Education 34, Chemistry 42, French 2, French 40, History 56, History 58 and Physics 41. The laboratory sessions were held on Saturday morning.

The Closing Exercises were held on April 9th. The ceremony was impressive and dignified. For the first time, because of space limitation in our auditorium, this function was held in Central United Church with organist, platform party, and academic procession. The University Chancellor acted as Chairman. The reception tea held in the auditorium at the Calgary Branch immediately after the exercises was attended by about seven hundred persons.

Enrolment trends in Canada at the university level are currently on the decline. For the first time since the establishment of the Calgary Branch, enrolment in the

Faculty of Education dropped significantly. In October 1950 the enrolment in the Edmonton Faculty of Education dropped 111 below that of 1949; in Calgary it rose by 4 persons, a net drop of 107. In October 1951 the Edmonton Faculty of Education enrolment dropped 74 below that of 1950; in Calgary the enrolment was down by a figure of 65, a net drop of 139 persons.

Report of Dr. John W. Gilles, Director of the Summer Session

Registration and Attendance

The advance registration for the University of Alberta Summer Session reached a total of 2,067, a decrease of 46 from 1950. Cancellations were received from 137 students, while 230 other students who registered failed to attend. As a result, 1,700 student appeared for classes. The corresponding figure for 1950 was 1,701. Of the students who actually attended the Summer Session 92.3 per cent were registered in the Faculty of Education.

Instructors

The Summer Session teaching staff was composed of a total of 76 instructors. The following summary indicates the sources from which these instructors were drawn.

Classification of Instructors

Full-time members of University staff	38
Visiting Instructors from Alberta:	
Department of Education	3
School systems	9
Others	8
	— 20
From other provinces	8
From U.S.A.	9
From Britain	1
	— 38
	—
	76

It will be noticed that only three members from the Department of Education were employed as instructors in the Summer Session. This is rather regrettable, for it would be desirable to maintain a rather close liaison between the Department of Education and the Faculty of Education in which so large a proportion of Summer Session students are registered. However, present regulations covering the conditions under which members of the Provincial Civil Service may be engaged by the Summer Session make it financially inadvisable to employ any more than a bare minimum of instructors from the Department of Education staff.

No adverse reports were received about the work of any of the visiting instructors. On the other hand, excellent reports were received about several of the visitors.

Courses

Seventy-two courses were offered in the Summer Session. Of these sixty-seven were full courses and five were half courses. Twenty-nine of the courses were laboratory courses in which are included industrial arts, drama, music, physical education, and certain courses in Education, as well as the physical sciences.

Difficulties encountered in engaging instructors from the staff of the Institute of Technology and Art in Calgary made it advisable to transfer the industrial arts courses from Calgary to Edmonton, where they were taught in Victoria Composite High School by members of the staff of that school. No Summer Session courses were taught in Calgary this year.

The transfer of the industrial arts courses to Edmonton seems to have done much to stimulate registrations in these courses. Whereas in 1950 only 36 students were registered in Calgary in seven different courses, this year in Edmonton 61 students were registered in five courses. The students registered in these courses expressed great satisfaction in being in close contact with the main body of Summer Session students and in being able to register for courses other than those in industrial arts. The consensus of opinion among the students was that they hoped that the practice of offering the industrial arts courses in Edmonton would be continued.

Special Events Program

This year, the Special Events Program consisted of one address and four musical evenings. The address was given by Mr. J. S. Miller of Dillard University, New Orleans, who spoke on "Albert Einstein, Scientist, Philosopher and Humanitarian". Two piano and song recitals were presented, one by Miss Geraldine Mason and Miss Ruth Gillis, the other by Miss Doreen Stanton and Miss Donna Gail Richards. Mr. L. H. Nichols, University Organist, is to be commended for a delightful organ recital. The choral recital presented by the combined music classes of the Summer Session under the direction of Mr. A. B. Crighton, Mrs. G. C. Higgin, and Miss Jocelyn Rogers was probably the best attended, and certainly the most enthusiastically received, musical recital of the Summer Session. Mr. Harlan Green was featured as the instrumental soloist on this program. To Miss Patricia Austin is due a special word of commendation for her supervision of the weekly session of old-time dancing.

During the course of the Summer Session, students also had the opportunity of attending two productions by the Studio Theatre Players, "Scenes from Shakespeare and Moliere", and "Charley's Aunt". Students in Drama 44 took an active part in the latter production.

A special Sunday Service was held in Convocation Hall on July 29th with Dr. E. J. Thompson as clergyman. The very large attendance fully justified the continuance of this feature of the Special Events Program.

Report of Dean John Macdonald, Chairman of the School of Graduate Studies

Registration

During the academic year, 1951-52, 231 students were registered in the School of Graduate Studies. There is an over-all decrease of 37 compared with the number registered in 1950-51.

The distribution of candidates according to departments has been as follows:

Animal Science	4	Medicine	1
Bacteriology	4	Modern Languages	3
Biochemistry	9	Philosophy and Psychology	16
Chemical Engineering	3	Physics	4
Chemistry	8	Physiology	2
Civil Engineering	6	Plant Science	15
Electrical Engineering	7	Political Economy	7
Dairying	1	Soils	3
Education	52	Zoology	2
English	7	Special Grads.	39
Entomology	2	B.D.	21
Geology	3		—
History	12	Total.....	231

Progress During Session

Ph.D. Candidates—There are signs of increasing interest in this degree on the part of the students from other universities who are qualified to apply. It is expected, for example, that next session there will be six in Plant Science. There are at present two in Biochemistry.

Organization—With the retirement of the present Chairman, it is expected that some reorganization will occur. A committee appointed by the President to look into this has already submitted its report and made specific suggestions. Basically it is felt that the School should have autonomous status with its administration detached from the office of any of the Deans.

Scholarships and Fellowships—It is hoped that the increase in the University of Alberta Research Scholarships and the Robert Tegler Research Scholarship from \$600 to \$900 will result in a greater number of applications for these scholarships from qualified candidates.

Recommendations for Degrees

The number of students recommended for master's degrees is as follows: M.A., 7; M.Sc., 15; M.Sc., Agr., 12; M.Sc., Eng., 5; M.Ed., 4.

Report of the Librarian, Miss Marjorie Sherlock

This has been a momentous year in the life of the Library, the first in our beautiful new building. In May 1951 the book collections from the various reading rooms and offices on the Campus were moved to the Rutherford Library—a total of 150,000 volumes moved in 8 days. As the dust settled and the movers departed the library staff began the task of setting the new library to rights, in preparation for the Official Opening on May 15th.

This ceremony took place in the Main Reading Room with 600 guests and members of the faculty present. The special speaker on this occasion was Dr. R. C. Wallace, Principal of Queen's University, formerly President of the University of Alberta. This ceremony was followed by a three-day "Open House", during which an estimated 5,000 people were conducted over the building by members of the library staff.

Staff

The Library during the past term has had a full time staff of 30 (of whom 16 were qualified librarians).

In July word was received of the death of Miss Helen Farquharson, formerly Chief Cataloguer. She had made a valuable contribution to the reorganization of the library during her six years here, and her passing is a matter of deep regret.

Quarters

The new quarters in the Rutherford Library have made possible a greatly expanded service. The recorded attendance is 181,417. This does not include the Education Libraries in Edmonton and Calgary, nor the Seminars or Smoking Study room of the Rutherford Library. Since it has never been possible heretofore to keep systematic attendance records, we have no way of calculating exactly the increased use made of the Library. Such figures as we have would indicate an increase of 75 to 100 per cent.

Even more significant is the improved quality of the service in the new building. In place of crowded tables, poor ventilation and light, and the continual noise and confusion of the old quarters, we can now provide ample study space in quiet surroundings, with easy access to books on open shelves for all readers, and with good study facilities in the stacks for honors and graduate students and faculty. There are facilities for displays of rare books, maps, manuscripts and art objects, a browsing area where books of general interest may be read and borrowed, a music listening room where programs of recordings are given daily for students and staff, and an art gallery and Indian museum.

The Projection Room, seating 100 and equipped with motion-picture and slide projectors, has been used an average of thirty-two hours monthly for class instruction requiring illustration, and its use is increasing steadily. It also has been used extensively in the evenings by scholarly and technical societies and groups and during the noon-hours for free showings of documentary films by the Department of Extension.

Visitors to the Library

During the year we have had a constant stream of visitors through the Library—tourists, visitors from other universities, interested citizens, parents of University students, and school children in organized groups. During the Varsity Guest Weekend in February, 1,600 were taken on conducted tours, and smaller groups are shown over the building constantly.

Departments

Orders—Work in this department has been much easier and pleasanter in the new surroundings and with the new equipment such as the electric book lift and stands for bibliographical tools. Adequate storage facilities now permit us to purchase supplies and equipment in bulk once a year.

This year's volume of work is the largest on record with 6,021 volumes ordered and with an additional 632 volumes received and acknowledged as gifts. Many of the books ordered this year were for the Calgary Branch, necessitated by the expansion of courses there.

Cataloguing—The new cataloguing quarters have enabled us to bring this department to full strength with three professional and three clerical assistants. The year saw the completion of the extra projects resulting from the consolidation of the various campus libraries in the new building. As it drew to a close plans were in the draft stage for the reclassification of the book collection according to the Library of Congress scheme—an undertaking likely to require four years.

During the year the department accessioned 7,979 volumes; catalogued 9,008 volumes (including 1,093 bound journals); labelled 8,086 volumes; and typed 39,512 cards.

Reference, Periodicals and Binding—This department is responsible for general reference service to students and faculty, for periodicals, maps and government documents, for inter-library loans, and for the binding of books and journals for the entire library. The Reference Reading Room and the Periodical Room are under its supervision.

From the first the use of the Reference Reading Room by students of all faculties, both for reference service and as a place to study, has been gratifyingly heavy. For the first time trained reference assistance is available in the evenings as well as throughout the day. From July 1st to March 31, 35,637 readers used this room, and 3,776 used the Periodical Room; the circulation of reference materials and current journals outside the library was 5,587; the number of reference problems dealt with 2,030.

During the year 1,218 current journal subscriptions were placed; 1,312 journals and books were bound; 262 items were borrowed on inter-library loan for staff members engaged in research, and 82 lent to other libraries. The number of theses by our own graduates added to the collection was 68.

General circulation—This department is in charge of the Main Delivery desk on the second floor, and of the browsing area and collections there, as well as the Main stacks and the Reserve Room.

The efficiency of this department has been immeasurably increased by the much-needed space and the labor and time-saving facilities of the Rutherford Library, which include pneumatic tubes and automatic book-conveyor. Conditions in the stacks are improved 100 per cent. There is now room for expansion. Books are easily and quickly found and reshelfed. Study carrels on each tier provide ideal facilities for faculty and graduate students.

During the past year the circulation statistics for the Reserve Room were considerably lower than the previous year—a trend which has been observed in university libraries across Canada. This is probably due to a number of causes, including reduced registration and the greater availability of textbooks for purchase. In our own case it has been counterbalanced by an increase in circulation from the stacks, indicating that the students are doing more independent reading as opposed to the prescribed reading of the Reserve Room.

During the year circulation from the Reserve Room was 27,572; from the main stacks and browsing area 22,747—a total of 51,605. Loans to extramural students, 942. Attendance from July 1st to the end of March in the Reserve Reading Room was 37,371; in the browsing area 7,204. The number of stack users was 5,215.

Branch Libraries

Medical Reading Room—As reorganized in the new building, this reading room serves the Faculties of Medicine and Dentistry, and the Schools of Nursing and Pharmacy. The attendance and use of books has increased greatly. Most of the books and journals are now fully accessible to readers on open shelves so that we have no statistics of their use in the library. The overnight use of reserve books and materials from the stack has increased 43 per cent. Total recorded circulation was 20,755, including 2,986 items loaned to city and rural doctors. Current journal

subscriptions number 360 (Medical 284, Dental 49, Nursing 12, Pharmacy 15). Attendance from September 1st to March 31st was 12,709—an increase of 56 per cent for the daytime and 15 per cent for the evenings.

Applied Science Reading Room—Since the move to the Rutherford Library this reading room has co-ordinated the resources and services of the former Agriculture, Chemistry and Mining Reading rooms. In addition, the engineering books and journals formerly housed in and circulated from the main stacks are now housed here, providing for the first time a specialized reference service for this faculty, which has been much used and appreciated.

Circulation statistics for this room give no indication of the use of the books in the library, since almost all the books and journals are on open shelves. Total circulation for use outside the library from July 1st to March 31st was 6,460. Attendance for the same period was 22,261, an increase of 80 per cent over the previous year's attendance in the Agriculture, Mining, and Chemistry reading rooms.

Law Reading Room—With the establishment of the Law collection in the Weir Memorial Reading Room it has been possible for the first time to provide full reference service. Much thought and care have gone into the building-up of this collection during the past six years, and in the spacious new quarters and with a qualified law librarian in charge we hope to make it one of the outstanding law libraries in Western Canada.

All the books in the reading room and in the adjoining two-tier law stacks are freely accessible to students, so no circulation figures are available except for over-night use, 2,448 volumes. Attendance in the library from September 1st to March 31st was 29,025. As the total registration of students in Law was 111, this figure gives some idea of the heavy use made of this reading room.

Education Library—This is the one branch library on the Edmonton campus which is not housed in the Rutherford Library. It is situated in the Education Building at the south end of the campus. Lack of space for books and readers in the reading room and the separation from it of the library study room on the floor above are making it increasingly difficult to provide good library service for Education students and staff.

During the year the librarian in charge, with three full-time assistants, circulated 47,109 volumes; 317 were mailed out to extramural students. It is not possible to keep attendance figures, as the study room is not supervised.

Calgary Branch—The expansion of the Calgary Branch has resulted for the library in an increase in space, equipment, books and staff. The opening of new teaching departments and the entrance of new groups into the student body have changed the type of service required, and the library from now on will cease to be a specialized one, and will reflect the fields of the faculties concerned—Arts, Science and Education.

Physical changes include the addition of another reading room, giving a total seating capacity of 140, an office for the librarian, new stacks, fluorescent lighting and other equipment. A large number of new books were purchased including texts and reading from the new courses and an excellent basic reference collection to meet the requirements of a junior college library.

During the year the Branch librarian with one clerical and two student assistants circulated 14,638 books and journals. As this is an open-shelf library, where students have direct access to the books, these figures give no indication of

the heavy use made of the books in the library. Attendance for the year was 28,075.

Stock of Books

During the year 7,979 volumes were added to the collection and 309 withdrawn, giving us a total of 119,310 accessioned volumes in the main library. In addition there are 15,144 in the Calgary Branch, and some 6,000 as yet unaccessioned in the Education library, Edmonton, making a total book stock of approximately 140,454 volumes at March 31, 1952.

Radio Talks

During the winter seventeen book talks were given by members of the University Library staff in the series "Books at Random" presented over CKUA in co-operation with the Extension Library. This was the seventh and last season for this series.

Report of the Provost, Professor H. T. Sparby

Student Affairs

This has been a successful year for all branches of student government on our campus. Under the able leadership of Mr. E. Peter Lougheed, president of the Students' Union, and his council, student affairs in general have been conducted with skill and efficiency.

The number and variety of extra-curricular organizations operating on the campus make it particularly important that the over-all administrative structure within which these organizations operate be well planned. Otherwise there is a danger that their interests might overlap and their activities interfere with one another. During recent years there have been few significant changes in this over-all administrative structure. However, one such change was made about a year ago, and since it seems to have worked out to the advantage of the organizations concerned, it will be briefly mentioned as illustrative of the manner in which the Students' Council organizes extra-curricular activities. Eleven campus clubs and societies engaged in cultural activities were grouped into three "directorates", called the "Musical Directorate", the "Politico-Speaking Directorate" and the "Theatrical Arts Directorate". Presidents of these directorates are elected by the student body as a whole and sit on Students' Council as representatives of their particular groups of clubs. They also act, along with the presidents of all eleven clubs, as an executive committee to handle matters such as the scheduling of major club activities for the year. This arrangement, therefore, both facilitates the co-ordination of the efforts of these eleven organization and gives them direct representation on Students' Council.

The Students' Union Building has now been in operation for two years and, as was anticipated, the second year has seen a marked increase in the use of the building. The house committee reports, for example, that the number of authorization forms issued by them this year, permitting various student groups to reserve meeting rooms and lounges for special events, was 50 per cent greater than the number issued during the first year of operation. The day-by-day administration and supervision of student activities carried on in the building continue to rest in the hands of a house committee appointed by and directly responsible to Students' Council. There are four persons on this committee, two men students and two women students. The two men live in the building. During 1951-52 the chairman of the committee was the senior man, Mr. Peter S. Stewart.

Student Activities

The past year has been normal in so far as the number of athletic, social, literary, musical and other activities carried out on the campus is concerned. This wealth of extra-curricular activity is a valuable feature of University life, not only because of the opportunities provided for students to pursue and develop special interests and talents, but also because of the opportunities provided for wholesome, worth-while recreation. This latter benefit is one which is of particular importance to active young people engaged in academic studies.

Notable among the special events of 1952-52 was the first "University Guest Weekend", a student sponsored venture in public relations which was carried out very successfully. The planning and over-all direction of the weekend was handled by Mr. Ivan Head, public-relations officer of the Students' Union, and a co-ordinating committee. Invitations were extended throughout the province to parents of University students and all others interested in the University to attend a series of special events to be held on the campus beginning Friday, February 29, and ending on Sunday, March 2. These events included an athletic carnival, campus tours to view specially prepared faculty displays, the agricultural field day, a variety stage show, a non-denominational church service, and a musical concert. It is estimated that 3,000 persons visited the campus during the weekend, including many parents from Calgary and other centres outside of Edmonton. Present plans of Students' Council are to make University Guest Weekend an annual affair.

Student Behavior

Disciplinary problems brought to the attention of the Provost during the past year have been relatively few in number and of a minor character. Life in the University residences has also continued throughout the term with no serious interruptions. The Disciplinary Committee of the Students' Union, which is normally called upon to adjudicate one or two cases each year, has not found it necessary to meet even once during 1951-52.

Extra-Curricular Awards

The importance of extra-curricular activities on our campus has received tangible recognition in recent years through the setting up of several awards. Chief among these are the following:

The J. D. O. Mothersill Memorial Scholarship, instituted three years ago, is awarded annually to "a student selected for outstanding contribution to student life in the University". The 1952 award was made to Mr. E. Peter Lougheed, president of the Students' Union.

The Board of Governors' Student Activity Awards, instituted two years ago, are made annually to certain officers in the student government in recognition of services rendered to the University through their positions. The 1951-52 awards were made to the president of the Students' Union, Mr. E. Peter Lougheed, the editors of the Gateway, Mr. G. D. Newcombe (before Christmas) and Mr. D. F. Fitch (after Christmas), the vice-chairman of the University Athletic Board, Mr. R. M. Miller, the director of Evergreen and Gold, Mr. G. M. Leitch, and the treasurer of the Students' Union, Mr. K. M. Manning.

The highest honor award made by the Students' Union is a gold ring, awarded to a student who "has demonstrated outstanding executive ability" in student affairs during his time at University. Four such rings were awarded in 1952, to

Mr. E. Peter Loughheed, president of the Students' Union, Miss Violet P. King, vice-president of the Students' Union, Mr. Garth Fryett, secretary of the Students' Union, and Mr. Ivan L. Head, public-relations officer of the Students' Union.

Report of the Director of Student Advisory Services, Dr. A. J. Cook

The second year of operation of this department has been one of consolidation and some expansion. Miss L. Wilson was appointed as a half-time sessional assistant beginning on September 1st. Her services have been invaluable, since the students have made constant use of the Department throughout the session. During the session 600 students came for one or more interviews, involving a variety of problems: study habits, emotional troubles, financial needs, assessment of ability and interest, etc.

The work during the summer was heavy, due to the inception of new policy in regard to students who had done unsatisfactory work during the previous session. All such students were advised by their Deans to seek re-counselling. Of the group who were required to leave faculties because of extremely unsatisfactory work, sixty per cent of the group wrote in or came in for assistance. Thirteen per cent of the group returned to the University, on recommendation from the Director.

Of the group whose work was generally unsatisfactory, but who were permitted supplementals, forty per cent returned to the University. Thirty per cent of this group did not write supplementals.

The department took over from the Students' Council the non-residence housing listings for the summer and regular session. The allocations of suites for married veteran students for 1952-53 was taken over on March 1st from C.U.R.M.A.

The policy regarding prospective students has been given further attention. School visits have been made as last year to different groups of schools: Crowsnest Pass, Calgary district, Grande Prairie district, Edmonton north east district, and Jasper and Edson. These visits are warmly welcomed by the schools. The experience gained in these visits convinces us that some means of faculty and student participation should now be explored.

Every effort is being made to assist prospective students, especially with their choice of course. An interest inventory is taken whenever this seems desirable.

At the request of the quota committees in Dentistry and Medicine, the department invited candidates for admission into these faculties to take an interest inventory. Practically all these students did so, and the subsequent interviews were greatly appreciated by the students.

The graduating group in Commerce were also invited to take an interest inventory at the suggestion of Professor Campbell. A good many did so, and again the interviews seemed to be appreciated.

The Employment Committee requested that the Department give what help it could with students graduating in the general B.A. and B.Sc. patterns. A questionnaire was sent to all of these not apparently continuing studies beyond graduation. There was good response, some asking for interviews, some checking with the Employment Service, and some letting us know their plans beyond graduation.

A check was made on students who were promoted from the first year, but who did not return to the University; 27 out of 372 did not return. A letter was

sent to the 27 students. There were not many replies; one student with a fine record did not return because of financial need.

The problem of finding prospective students who are unable to attend University because of financial circumstances is one that will require constant attention. The co-operation of the schools was enlisted last year, and as a result, a number of students were given assistance. An unpublished Thesis Study (Ackroyd and Roberts) shows that of the 821 matriculants in Alberta High Schools (1949) 422 entered the University. The 399 who did not come were written, and 201 replies were received; 79 out of these 201 students indicated that they wished to attend the University but did not do so for financial reasons. It is probable therefore that at present about 15 per cent of the matriculants from the high schools have the desire to come to the University, but are not able to because of finances.

The department with the approval of all schools and faculties arranged to give a few basic tests to all new students during Freshmen Week. These tests are of real value in counselling as data supplementary to that supplied by the student, the school, the University and the scholastic record.

Report of the Chairman of the Committee on Physical Education, Dr. P. S. Warren

The work of the Department of Physical Education for the term 1951-52 followed quite closely that of previous years. It involved activities in many fields including (1) the degree course in Physical Education, (2) special activities of Faculty of Education students, (3) service program (prescribed program for all first year students), and (4) intramural program for both men and women students.

(1) The degree course in Physical Education is keeping a fairly level enrolment and will probably not increase unduly in the near future. In the first three years of the course, the total enrolment is 32 men and 20 women. It is anticipated that the demand for women graduates will exceed the supply.

(2) The special activities for the Faculty of Education students involved 81 men and 241 women and included two hours of Health Education and two hours of Physical Education a week, all of which were supervised by the staff of the Department of Physical Education.

(3) The service program required of all students of proper physical fitness (omitting the Faculty of Education) in the first year of their University course involved a total of 382 men and 116 women. Their schedule included a wide variety of physical fitness activities and initiation to such sports as basketball, volleyball, badminton, etc. This part of the activities of the Department is quite time consuming.

(4) The intramural program, which includes sports on the campus that are not usually included under the University Athletic Board, has been extended during the year. Intra-university competition is very popular and gives the main outlet for the physical energies of the average student. It is conducted entirely by the Department of Physical Education. This year it is estimated that 1,370 men took part in the intramural program. This program is very time consuming for the staff of the Department.

The staff of the Department of Physical Education actively coached teams for the Athletic Board, including teams in basketball, hockey, volleyball and swimming.

Various members of the Department are giving much of their time and energies in promoting Physical Education and Health throughout the Province.

Report of the Director of Student Medical Services, Dr. J. W. Scott

The session 1951-52 has presented some problems, the greatest one being the lack of physical facilities due to our not being able to use the Infirmary building. However, the temporary facilities in the basement of Athabasca Hall have partly satisfied our requirements. We hope that before the Summer Session opens the Infirmary will be set up in its new site and will be available for occupancy.

There were some major illnesses during the year throughout the student population which necessitated long periods of hospitalization in the University Hospital. This has led to increased costs. We had the misfortune during this year to lose two of our students by death. Mr. Stewart Peddicord died from brain tumor and Mr. Fred Twerdochlib died from a tumor of the chest.

The attendance at the Infirmary has kept up and through the good services of Dr. J. F. Elliott, Dr. M. M. Cantor, and Miss A. Revell and her staff, excellent work is being done at the out-patient level. Because of the absence of Infirmary beds it was necessary to hospitalize more patients than usual in the University Hospital. This has also contributed to our costs of operation. Our consultant staff, consisting of Dr. S. Spaner in the field of psychiatry and Dr. Margaret Hutton in the field of gynaecology, have given us good services.

The programme of immunization of medical students and B.Sc. nurses against tuberculosis with B.C.G. has again been carried on this year under the supervision of Dr. J. F. Elliott. Nine hundred and sixty-nine freshmen examinations were carried out at the beginning of the 1951-1952 session and most of these students had chest x-rays done through the Tuberculosis Division of the Department of Health.

Report of the Radio Secrearty, Miss Margery W. MacKenzie

The University of Alberta has continued to utilize approximately the same amount of broadcast time over CKUA this year as in the past several years. Of the three hours a day, five days a week, of broadcast time presently allotted to it, one hour a day, a noon music hour, has been left for the present in the hands of the CKUA staff. Of the other two hours a day, one hour in the early evening has been devoted to good music. The other hour has included programs dealing with world affairs, science, literature, household economics, agriculture, education research, adult education, drama, music, and children's entertainment. All but two of these have been presented in the early evening.

During the University term members of the University of Alberta faculty have assumed responsibility for the broadcast of ten regular program series, involving 190 programs of 15 or 30 minutes duration and totalling more than 50 hours of broadcasting. In addition to these, two series, the Music Hour, with five hour-long broadcasts a week, and the Alberta Farm and Home Forum with three 15-minute broadcasts a week, continue throughout the entire twelve months of the year. These two programs constitute an additional 300 hours of broadcasting in the year.

The broadcasting of the University programs has been from the campus studios. Operation of controls and announcing for the evening programs has been handled during the University term by three students under the direction of the Radio

Secretary. Daytime programs have been handled by the Radio Secretary and her assistant in Radio Service.

As a convenience to broadcasters, 140 programs were transcribed this year in the University studios, and were presented as recorded programs. Approximately 65 of these were tape recordings and the remainder were electrical transcriptions.

University programs were publicized this year, for the third successive year, by means of printed program schedules, "The University of Alberta on the Air". Eight of these were printed during the year and about 2,500 copies of each were distributed. Obtainable on request, these program guides (five to cover the winter programs and three the summer series) have been requested by listeners in all parts of Alberta as well as in western Saskatchewan and north-eastern British Columbia.

Throughout the University term Thursday evening has been designated as "student night" and many of the programs broadcast over CKUA that evening have been produced by members of the Radio Society. Regular broadcasts were presented from the campus studios and from the Students' Union Building and a number of games and special events were broadcast as well. Program series included: Green and Gold sports, Varsity Varieties, and Champs—or Chumps?

Report of the Western Board of Music in Alberta, by Professor R. S. Eaton

Candidates and fees

In February, May and June of 1951, 1,300 candidates sat for practical and theoretical examinations, and total fees were \$3,838.91.

This is a decrease of 153 candidates and \$382.95 from the corresponding figures for 1950. The reduction in fees is directly attributable to (1) fewer entries in the higher grades, (2) the loss of three large centres because of the illness or removal of the teachers concerned. It is expected that these centres will be active again in 1952.

Centres

(a) Practical

February, 1951—Edmonton, Calgary, *Sundre*, Innisfail, Pincher Creek.

June, 1951—Blairmore, Bonnyville, Calgary (3), *Dawson Creek*, B.C., Donnelly, Drumheller, Edmonton, Falher, Fort Kent, Girouxville, Glendon, Grande Prairie (2), Innisfail, Lacombe, Lethbridge (6—including one large group from Glenwood), McLennan, *Mannville*, Peace River, Pincher Creek, Red Deer (3), Rycroft (2), *Spirit River*.

(Italicized centres were new in 1951.)

(b) Theoretical

February, 1951—29 centres.

May, 1951—37 centres.

Examiners

Mr. Burton Kurth, Mr. Glenn Nelson, Vancouver; Mr. John Waterhouse, Winnipeg; Mrs. Dorothy Swetnam Hare, Mr. Leonard Leacock, Calgary; Mrs. Orval Doney, Miss Donna Frazer, Mr. E. A. Moore, Mr. A. B. Crighton, and Mr. R. S. Eaton, Edmonton.

Diplomas Granted

Fall Convocation—L. Mus: Nelda Faulkner, Carlina Carr, Allan Boomer.

A. Mus.: Lois Wynnychuk, Marilyn Webb, Dorthory Buckley, Audrey Clark.

New Syllabi

In addition to examination material contained in the regular syllabus, lists have been prepared for examinations in Violoncello, Trumpet, Flute and Clarinet.

Broadcasting

Once again local teachers have agreed to assist with the programmes illustrating pieces from the syllabus, and we were pleased to present the following well-known Edmonton teachers: Mrs. Leonard Dawes, Miss Eva Saito, Professor L. H. Nichols, Miss Geraldine Mason, Mr. D. Harcourt Smith, and Miss Doreen Stanton. Mr. Crichton, of the Music Division, devoted one broadcast to the discussion of examination problems.

These programmes were resumed in the Fall of 1951 and so far we have heard Mrs. Dorothy Langmo and Miss Mary Hughes of Calgary, and Mr. Edgar Williams.

Recitals

Regional recitals and presentations of awards were held in five centres, and young visiting artists again contributed much to the programmes. Centres in which recitals were presented were: Calgary, Edmonton, Lethbridge, Grande Prairie, Red Deer. The guest artists were Miss Doreen Stanton and Miss Ardis Liden of Edmonton, and Miss Ruth Chennells, Miss Arlene Meadows and Miss Marian Paulence of Calgary.

Scholarships, Bursaries, Prizes

In 1951 awards totalling nearly \$5,000 were made to outstanding students. The Government of Alberta again contributed \$1,000 in the form of ten bursaries.. The gold medal offered by the Board of Governors to the candidate receiving the highest mark in completing the final examination of the A.Mus. (Alberta) was awarded to Miss Marilyn Webb, of Edmonton. Twenty-eight Silver Medals were awarded.

Advisory Services

We feel that a definite form of help is offered to teachers in our answers to their many and varied problems. This is well worth the extra time which is of necessity devoted to this work, and the appreciation is great, particularly among rural teachers.

Report of Squadron Leader L. E. Gads, Commanding Officer of the R.C.A.F. Reserve University Squadron

As in the previous year, the Reserve Officers School held at the conclusion of the winter session proved very successful. It was held in May and June 1951 at Royal Military College, Kingston, Ontario, and Flight Cadets enjoyed both the Indoctrination Course and the opportunity of meeting fellow university students from across Canada. The locale, with its military and historic background, appealed particularly to students from the west.

Last fall the University Flights were reorganized into Reserve University Squadrons with the former O.C.'s becoming Commanding Officers. The Squadron now comes directly under the Training Command Headquarters at Trenton and is a self-administering unit, except for pay and accounts which are handled by Station Edmonton.

Flight Lieutenant J. H. Woods relinquished his duties as the Resident Staff Officer upon his promotion to the rank of Squadron Leader, and his post was assumed by Flight Lieutenant R. A. Wallace. Flight Lieutenant A. Crighton acted again as the adjutant of the Unit.

Recruiting last fall suffered again because the Armed Forces units were unable to compete with the rates of pay offered by private employers. Since many students are self-supporting, making as much money as possible during the summer months is an important consideration. However, the Unit was able to secure its quota of Flight Cadets, representing all Faculties.

A new policy has been instituted this year in regard to the selection of candidates for Air crew training. Cadets who qualify medically will be subjected to special aptitude tests at the School of Aviation Medicine and their final selection will depend also on their record at the Indoctrination Course.

Winter training this year followed the same pattern as in the past years. Lectures were delivered by staff officers of the Unit, visiting officers from R.C.A.F. and guest lecturers from the University. Some elementary drill and revolver practice was attempted, but this was handicapped by lack of proper facilities. Films were used extensively. A bulletin board in the Arts Building rotunda was used to display current events maps in connection with the discussions of current affairs.

Extra-curricular activities included a joint C.O.T.C.-U.N.T.D.-R.C.A.F. dance at Nonsuch. A parade and march-past was organized in the fall, but had to be cancelled due to bad weather. Some of the junior cadets were taken on familiarization flights.

Report of Lt.-Col. D. M. Healy, Officer Commanding, the University of Alberta Contingent of the Canadian Officers' Training Corps

The officers of the Contingent for the academic year were: Commanding Officer, Lt. Col. D. M. Healy, MBE; Contingent Officers, Maj. H. J. Bishop, CD, and Resident Staff Officer, Maj. J. E. Pincock.

There were 96 officer cadets on strength at the beginning of the year; of these 53 took the theoretical training course, the remainder were struck off strength for the following reasons: 8 were commissioned as Second Lieutenants in the Canadian Army (Active Force) under the Department of National Defence Subsidization Plan for students in their final year; 4 qualified and were commissioned as Lieutenants in the Canadian Army (Reserve Force); 19 qualified and were commissioned as Lieutenants in the Canadian Army (Supplementary Reserve); 4 qualified and were commissioned as Second Lieutenants in the Canadian Army (Supplementary Reserve); 2 did not return to University; 1 was declared medically unfit; 5 withdrew from the Contingent at their own request.

In February, 11 officer cadets were taken on strength and assigned to various Corps in the Army. In all, 64 officer cadets will be taking practical training, during the summer months, for not less than twelve or more than twenty weeks.

The dearth of applications this year for officer training in all three Services at the University was very noticeable. Last year the C.O.T.C. had 67 applications of which 46 (intake quota) were accepted for training. This year only 14 applications were received, of which 11 were accepted. No Service managed to fill its intake quota. A comparable situation obtained at the Universities of British Columbia and Saskatchewan.

A new policy on C.O.T.C. officer qualification was enforced this year. Officer cadets who complete two years of training qualify in the rank of Second Lieutenant (Active or Reserve Force), and not in the rank of Lieutenant (Reserve Force) as they did formerly. Those who complete three years training qualify in the rank of Lieutenant (Active or Reserve Force), instead of Lieutenant (Active Force) or Captain (Reserve Force) as they did in the previous plan. A further change is this. Officer Cadets are commissioned in the rank of Second Lieutenant (C.O.T.C.) at the start of their third year of training.

In September 1951, Lieutenant Colonel Healy reassumed command of the Contingent, on his return from sabbatical leave. Major Bishop relinquished the acting rank of Lieutenant Colonel and resumed the appointment of Second-in-Command. Captain Reed was promoted to the rank of Major in February 1952.

Report of Lt. Cdr. R. E. Phillips, Commanding Officer, University Naval Training Division

Late in April 1951 about 35 cadets were drafted to the West Coast for Summer Training. One cadet spent the summer at the East Coast undergoing Observer Training with the Fleet Air Arm. The cruises and training carried out in Shore Establishments were well received by the cadets and general satisfaction was expressed by all students who took part in the Summer Training scheme.

A Staff Officer was appointed to this Division for full-time work with the U.N.T.D. for the winter 1951-52. His assistance has added greatly to the success of the winter training. Office accommodation for the Staff Officer was secured through the kind co-operation of the C.O.T.C. and R.U.F. Attached to the U.N.T.D. for Divisional and Instructional work were five Reserve Officers.

Twenty-five first year Probationary Cadets were attested in the fall of 1951. Seventeen of these passed the Selection Board in January and were retained in the U.N.T.D. The strength of the Division as of April 1, 1952, was 42. Of these it is expected that 35 will take Summer Training in 1952. One cadet who discontinued University studies during the year was promoted to Midshipman R.C.N. and will be promoted to Acting Sub-Lieutenant R.C.N. in September 1952. Two cadets were promoted to Sub-Lieutenant R.C.N.(R). The Defence Research Board will accept third year Cadets for Summer Training in their establishments during the summer 1952 if considered suitable.

The maximum number of days' pay allowable for Winter Training was raised during the year to 32 and the monthly rate of pay raised to \$170.

Twenty-one regular training parades were held during the year. In addition, one day was spent on street-lining duty during the visit of Princess Elizabeth and the Duke of Edinburgh. The Division also attended the Armistice Day ceremony and the Church Parade held at H.M.C.S. Nonsuch on the day of the late King's funeral. In conjunction with the C.O.T.C. and R.U.F. a Tri-Service Ball was held on January 25. On March 3, Cdr. C. H. Little, Staff Officer U.N.T.D., from Naval Headquarters, inspected the Division and on March 25, the Division attended the annual Inspection by the Director of Naval Training at H.M.C.S. Nonsuch.

Inspection trips through the Imperial Oil Refinery and to North West Air Command were carried out during the year. Eight extra parades were held on Wednesday afternoons at the University Gymnasium for which outside lecturers

were secured and films were shown. During the Christmas Holidays a seven-day Divisional Course was held for cadets who lived in Edmonton. This was very well attended and was most successful.

Report of the Director of the Department of Extension, Mr. Donald Cameron

Statistical Survey

Lectures

University Teaching staff	980		
Department of Extension staff	228		
	—	1,208	
Aggregate attendance			89,355
Number of radio talks:			
Extension staff	57		
Teaching staff	207		
	—	264	
Conferences and short courses, Table XIII			5,454
Number in attendance at oil conference	480		
Studio Theatre attendance	5,494		
Feeders' Day attendance	899		
Breton Field Day	350		
Plant Science Field Day	300		
	—		1,450

Visual Instruction

Number of sets of standard slides sent out	62		
Number of 2x2 slides sent out.....	376		
Number of times slides were used	354		
Total audiences viewing slides		13,665	
Sets of filmstrips sent out	1,913		
Individual filmstrips sent out	4,066		
Number of times filmstrips were shown	2,623		
Total audiences viewing filmstrips		98,407	
Number of slide lanterns loaned	58		
Number of filmstrips and 2x2 projectors loaned	90		
Sets of silent films sent out	258		
Sets of sound films sent out	3,958		
Number of reels of sound films sent out	15,940		
Total sets of moving picture films sent out	4,216		
Total number of reels of moving picture films sent out.....	16,903		
Total number of showings of films, sound and silent.....	5,417		
Total audiences viewing films, sound and silent.....		473,910	
Number of times projection services supplied	372		
Branch Library film showings	1,920		
Number of reels sent out from branch libraries	8,821		
Aggregate attendance at film showings from branch libraries		162,044	

Library and Debating Service

Number of travelling libraries in use	440		
Number of times sent out:			
Regular libraries	280		
Special libraries	160		
Recorded circulation		24,041	

Open Shelf Circulation

Books:

Adult	41,528	
Juvenile	10,702	
Banff School	6,836	
Plays	2,391	
Periodicals and pamphlets	3,572	
	<hr/>	65,029
Number of package libraries for debaters sent out		51

Study Group Material

Number of Citizens' Forum Bulletins sent out	1,650	
Total number of sets of study bulletins sent out	25	
	<hr/>	1,675

New Canadian Plays and Soil Mechanics

Number of copies of New Canadian plays sold	380	
Number of copies of Proceedings of Soil Mechanics and Concrete sold	30	
	<hr/>	410

Publications

Press Bulletin, Seasonal Notes	10,000	
Press Bulletin, Feeders' Day Program	4,000	
	<hr/>	14,000
Agricultural bulletins sent out during year	17,497	
Mimeos, circulars and other bulletins sent out	400	
	<hr/>	17,897
Total number of bulletins distributed since inception of service	542,055	

University News Letter

Number of issues	18	
Circulation, 18x200		3,600
MAT circulation		800
The New Trail—number sent out		16,500

Recapitulation

Total aggregate attendance at lectures, conferences, schools and short courses, lantern slide lectures, filmstrip programs, moving pictures, circulating film exchange, oil conferences, Studio Theatre, Field Days ..	850,259
Total circulation of travelling library books, Open Shelf, package libraries for debaters, Citizens' Forum Bulletins, sets study group material, New Canadian Plays, Proceedings Soil Mechanics and Concrete	91,206
Total circulation of Press Bulletins, Agricultural publications, News Letter, New Trail, MAT	52,797

Conclusion

If we accept the thesis that the function of University Extension is to mobilize the educational resources of an area or region and bring them to bear in meeting the needs of the people, then the University of Alberta is playing a major role in meeting the educational needs of the people far beyond the classroom. During the year just concluded, 3,400 students were enrolled in courses leading to academic credits of one kind or another; 5,454 were enrolled in some 97 extension classes held in 22 different centres in Alberta. Many thousands more received services varying from a letter answering an inquiry on some personal problem, to a scientific bulletin or a program of educational films or a travelling library. In every case,

the University was carrying out its vital role of "going to the people" and helping them to continue their education. In taking the University to the people the extension program has offered everything from a Brahms Concerto for a group of talented music students to a Mud School for roughnecks in the oil drilling industry.

Each represents a phase of community life, vital and important. So long as the University continues to reach out to serve such diverse groups, so long will it continue to grow in strength and influence because its roots will find sustenance and its mind challenge and inspiration in the people's needs.

The complete Annual Report on Extension Activities of the University of Alberta for the year ended March 31, 1952, which includes a report on the 1951 session of the Banff School of Fine Arts, is available in printed form.

Table XIII.—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension

Course, Class, Conference	Sponsor	Place	Period	Duration	Attendance
1. Commercial Law	Department of Extension	Edmonton	Oct. 29-Jan. 14	10 lectures	52
2. Building a Home	"	"	Oct. 29-Jan. 14	"	32
3. Home Management	"	"	Oct. 30-Jan. 15	"	12
4. Conversational French (1951)	"	"	Oct. 30-Jan. 15	"	31
5. General Psychology	"	"	Oct. 31-Jan. 16	"	65
6. Appreciation of Literature	"	"	Oct. 31-Jan. 16	"	64
7. Comparative Religion	"	"	Nov. 1-Jan. 17	"	47
8. Business Finance	"	"	Nov. 1-Jan. 17	"	70
9. Feeding the Family	"	"	Nov. 2-Jan. 18	"	23
10. German	"	"	Jan. 21-Mar. 24	"	17
11. Principles of Gardening	"	"	Jan. 21-Mar. 24	"	43
12. Interior Decoration	"	"	Jan. 22-Mar. 25	"	207
13. Financial Statement Analysis	"	"	Jan. 22-Mar. 25	"	92
14. World Affairs	"	"	Jan. 23-Mar. 26	"	67
15. Philosophy	"	"	Jan. 23-Mar. 26	"	60
16. Music Appreciation	"	"	Jan. 24-Mar. 27	"	98
17. How Canada is Governed	"	"	Jan. 24-Mar. 27	"	13
18. Beginners' Ukrainian	"	"	Jan. 25-Mar. 28	"	113
19. Conversational French (1952)	"	"	Jan. 22-Mar. 25	"	16
20. Commercial Law	"	"	Jan. 28-Mar. 31	"	47
21. Building a Home	"	"	Jan. 28-Mar. 31	"	36
22. Financial Statement Analysis	"	"	Jan. 29-Apr. 1	"	89
23. Landscaping the Small Lot	"	"	Jan. 29-Apr. 1	"	27
24. Canada and World Affairs	"	"	Jan. 30-Apr. 2	"	21
25. Business Finance	"	"	Jan. 30-Apr. 2	"	46
26. Business Mathematics	"	"	Jan. 30-Apr. 2	"	23
27. Accounting I	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 9-Mar. 29	20	29
28. Accounting II	"	"	Oct. 9-Mar. 29	20	24
29. Advanced Cost Accounting	"	"	Oct. 9-Mar. 29	20	16
30. Business Mathematics	"	"	Oct. 9-Mar. 29	20	36
31. Accounting I	"	Calgary	Oct. 9-Mar. 29	20	43
32. Accounting II	"	"	Oct. 9-Mar. 29	20	34
33. Advanced Cost Accounting	"	"	Oct. 9-Mar. 29	20	14
34. Life Drawing and Painting	Department of Fine Arts	Edmonton	Oct. 15-Apr. 11	23	13
35. Portrait and Life Drawing	"	"	Oct. 15-Apr. 11	23	29
36. Composition—Water Color & Oil	"	"	Oct. 15-Apr. 11	23	24
37. Anatomy	"	"	Oct. 15-Apr. 11	23	7
38. Pictorial Composition and Technique	"	"	Oct. 15-Apr. 11	23	7
39. Portrait and Life Drawing	"	"	Oct. 15-Apr. 11	23	26
40. Composition—Water Color & Oil	"	"	Oct. 15-Apr. 11	23	28

41.	Still Life—Water Color	Department of Fine Arts	Edmonton	Oct. 15-Apr. 11	9
42.	Color and Design	"	"	Oct. 15-Apr. 11	8
43.	Silk Screen Theory and Practice	"	"	Oct. 15-Apr. 11	9
44.	University Women's Club	"	"	Oct. 15-Apr. 11	8
45.	Community Art Class	"	"	Oct. 15-Apr. 11	10
46.	"	Bassano Art Club	Bassano	Oct. 19-Apr. 12	8
47.	"	Brooks Sketch Club	Brooks	Oct. 19-Apr. 12	8
48.	"	Camrose Art Club	Camrose	Nov. 2-Apr. 18	12
49.	"	High River Art Club	High River	Nov. 1-Apr. 3	11
50.	"	Lacombe Art Club	Lacombe	Nov. 8-Apr. 3	10
51.	"	Ponoka Art Club	Ponoka	Jan. 18-Apr. 18	11
52.	"	Mannville Art Club	Mannville	Nov. 30-Apr. 4	9
53.	"	Westlock Art Club	Westlock	Jan. 4-Apr. 18	9
54.	"	Red Deer Art Club	Red Deer	Oct. 19-Apr. 19	10
55.	"	Viking Art Club	Viking	Oct. 17-Mar. 25	10
56.	"	Medicine Hat Art Club	Medicine Hat	Oct. 19-Apr. 12	8
57.	Personnel Management	Wetaskiwin Art Club	Wetaskiwin	Oct. 19-Mar. 28	11
58.	Creative Writing	Dept. of Psychology and	Edmonton	Jan. 16-Mar. 18	10
59.	Intensive Short Course in Art	Personnel Association	"	Jan. 18-Mar. 21	10
60.	Choral Leadership	Canadian Authors' Association	Dawson Creek	Apr. 30-May 9	10 days
61.	Choral Leadership	Dept. of Fine Arts, Music Division	Tofield	Feb. 18-Mar. 24	6 lectures
62.	Music Appreciation	"	Wetaskiwin	Feb. 19-Mar. 25	6
63.	Community Life Conference	"	Red Deer	Jan. 23-Mar. 26	7
64.	"	Department of Extension and Com-	Gooseberry Lake	July 18-July 22	5 days
65.	"	munity Centres	Fairview	July 8-July 11	4 days
66.	Short Course for Small Libraries	"	Beaverlodge	July 4-July 8	5
67.	Oil Treating School	"	Edmonton	May 29-June 1	4
68.	Mud School	Alberta Library Association	"	May 7-May 18	10
69.	Gas Metering School	Dept. of Pet. & Chem. Eng.,	"	May 14-May 25	10
70.	13th Municipal Administration Course	W.C.P.A.* & Dept. of Extension	Edmonton	May 21-June 1	10
71.	7th School Administration Course	Dept. of Pet. & Chem. Eng. W.C.P.A.	Banff	May 20-May 24	4
72.	33rd Farm Young People's Week	C.A.O.D.C.† & Dept. of Extension	"	June 5-June 7	3
73.	Leadership Techniques	Dept. of Pet. & Chem. Eng. and Dept. of Extension	Edmonton	June 5-June 13	8
		Alberta Assoc. of Mun. Dist. Sec.-	Banff	Nov. 14-Nov 22	8
		Treas., Dept. of Municipal Affairs,			
		and Dept. of Extension			
		Dept. of Education, Alberta School			
		Trustees' Assoc., Alberta Divisional			
		Sec.-Treas. Assoc., and Dept. of			
		Extension.			
		Faculty of Agriculture, School of			
		Household Economics, School of			
		Nursing, and Dept. of Extension			
		Dept. of Extension, F.U.A., U.G.G.			
		and Alberta Wheat Pool			

Table II—Continued

Course, Class, Conference	Sponsor	Place	Period	Duration	Attendance
74. Fall Mud School	Dept. of Pet. & Chem. Eng., C.A.O.D.C., and Dept. of Extension	Edmonton	Sept. 4-Sept. 14	10 "	35
75. 3rd Forest Conservation Course	Dept. of Resources and Development, Ottawa, and Dept. of Extension	Banff	Oct. 15-Nov. 3	20 "	17
76. 3rd Wildlife Management Course	Dept. of Resources and Development, Ottawa, and Dept. of Extension	"	Nov. 5-Nov. 21	16 "	17
77. Sanitary Inspection Course	Rural Health Unit, Dept. of Extension	Edmonton	Apr. 23-Apr. 27	4 "	26
78. Driver Education Course	A.M.A., Dept. of Extension	"	Aug. 20-Aug. 24	5 "	46
79. Fire Prevention and Handling Explosives	Workmen's Compensation Board	"	Aug. 21-Aug. 23	3 "	300
80. Mud School	Dept. of Pet. & Chem. Eng., C.A.O.D.C., and Dept. of Extension	Calgary	June 11-June 22	10 "	41
81. Purchasing Agents (Calgary)	Edmonton Purchasing Agents' Assoc.	Edmonton	Nov. 14-Apr. 9	10 lectures	65
82. Purchasing Agents (Edmonton)	Edmonton Purchasing Agents' Assoc. and Dept. of Extension	Calgary	Nov. 13-Apr. 7	10 "	43
83. Hospital Administration	School of Nursing, Faculty of Medicine, Dept. of Extension	Edmonton	Feb. 4-Feb. 29	20 days	18
84. Improving Nursing Care	School of Nursing, Faculty of Medicine, Dept. of Extension	"	Feb. 18-Feb. 28	4 lectures	96
85. Improving Nursing Care	Alberta Assoc. of Registered Nurses, School of Nursing, Faculty of Medicine and Dept. of Extension	Lethbridge	Feb. 20-Feb. 22	3 "	50
86. Motor Fleet Supervisors	A.M.A., C.A.O.D.C., Dept. of Extension	Edmonton	Mar. 20-Mar. 24	5 days	50
87. Central Alberta Mud School	Dept. of Pet. & Chem. Eng., C.A.O.D.C., Dept. of Extension	Stettler	Feb. 18-Feb. 29	10 "	35
88. June Short Course in Art	Department of Extension	Banff	June 25-July 7	13 "	30
89. Banff School of Fine Arts	"	"	July 10-Aug. 18	5½ weeks	452
90. Autumn Short Course in Art	"	"	Sept. 3-Sept. 22	3 "	12
91. Leathercraft	"	"	Nov. 2-Mar. 15	25 lectures	10
92. Business Administration	"	"	Mar. 3-Apr. 10	6 weeks	24
93. Drama Workshop	"	"	Apr. 30-May 2	3 days	40
94. Drama Short Course	"	"	Nov. 6-Jan. 15	4 lectures	15
95. Drama Workshop (School)	"	"	Feb. 11-Feb. 14	4 days	40
96. Home and School Workshop	Alberta Federation of Home & School Associations	High Prairie	Sept. 10-Sept. 12	3 "	30
97. Toolpushers Institute	Department of Extension	Banff Calgary	Aug. 6-Aug. 7	2 "	30
Total.....					5,454

†Canadian Association of Oilwell Drilling Contractors.

*Western Canada Petroleum Association.

Report of Dr. R. D. Stuart, Director of the Provincial Laboratory of Public Health

During 1951 the Provincial Laboratories carried out 213,138 examinations. The nature of these tests is shown in the accompanying table and shows a considerable spread of interest over general and sanitary bacteriology, tissue pathology and clinical pathology. The work done has increased by 21,010 examinations or by 11 per cent, indicating the continual growth in the demand for such services and the general importance of the Provincial Laboratories to community health.

Special Trends

In the Central Provincial Laboratory—In Edmonton, the most striking trend was the increased interest in antibiotic resistance of microorganisms. This information is of direct importance in the treatment of most infectious or communicable disease and is of considerable value in keeping down the cost of such treatment. Another striking feature of this year's work has been the 60 per cent increase in mycological examinations. This is in accordance with current trends in medical appreciation of the importance of fungi in human disease.

Dr. Macgregor, Head of the Pathology Department, reports a considerable increase in requests for the detection of tumour cells in body fluids. Smear diagnosis, particularly in relation to cancer of the lung, is becoming increasingly important, probably in consequence of the developing medical realization of the high incidence of this type of malignant process.

In the Southern Branch Laboratory—In Calgary, Dr. Shute reports a considerable increase in work associated with intestinal disease. This is due in some measure to the occurrence of a typhoid outbreak in the Macleod area but principally to the fact that the addition to his staff of Dr. Crichton, an experienced bacteriologist, has allowed a considerable extension of work in this field. In the Southern Laboratory the sanitary bacteriology facilities for the examination of milks and waters have been in sharply increased demand, and it has proved necessary to carry out such investigations in unusual detail in order to satisfy the requirements of the area.

New or Supplementary Services

During the year, and as anticipated in last year's report, the Central Laboratory was able to recommence the investigation of gonococcal infection by cultural methods. Considerable experimental work had to be carried out to evolve a satisfactory technique but the fact that 802 examinations have been carried out since the service was initiated in the fall shows that there is a considerable demand for this work. The increased diagnostic value of this type of service is very clearly shown in the figures for December. Out of 183 examinations 13 were positive, 8 of these being detected solely by the new culture technique.

In the Pathology Department of the Central Laboratory a study of the new method of smear diagnosis by the use of fluorescent dyes was undertaken in collaboration with the Department of Obstetrics and Gynaecology of the University Hospital. This may prove a valuable adjunct to diagnostic methods now employed in the diagnosis of cancer of the cervix.

In tuberculosis no new service has been offered, but some experimental work has been carried out on the new haemagglutination technique. It is felt that this offers considerable promise in the evolution of a satisfactory serological test for

tuberculosis, but at the moment the test shows many irregularities which makes specific interpretation difficult.

Regular Laboratory Services

Bacteriological—In the control of communicable disease it is difficult to say which examination is purely for therapeutic purposes and which is for public health control of infection. In consequence it may be said that practically all bacteriological investigations, with the possible exception of the so-called sanitary bacteriology, are applicable in some measure to the control of infection. During the year there was no dramatic increase in any of the common pathogens identifiable in the laboratory. Diphtheria infection still seems to be on the downgrade, which is reflected to some extent in the reduced number of throat swabs received. Two small typhoid outbreaks were encountered; one arising in the Devon area within the scope of the Central Laboratory and one in the Macleod district already referred to in connection with the Southern Laboratory. In both instances it was possible through numerous examinations to provide extensive epidemiological information to the health authorities responsible for the control of the respective outbreaks. In consequence of the topical importance of controlling sewage disposal, arising especially out of the Devon outbreak, some preliminary work on bacteria in sewage effluents was carried out with the co-operation of Dr. Baster, Director of Communicable Diseases. Although the work was not extensive, it was possible to show that pathogenic organisms of Enteric Salmonella groups were present in certain sewage outfalls.

The increased number of examinations in syphilis serology in both laboratories probably does not express any distinct increase in the incidence of such infection within the Province but is probably due mostly to casual variation.

Sanitary Bacteriology—In both laboratories this aspect of the work has been concerned chiefly with the examination of water and milk. Because of the varied sources of these materials it is not possible to draw any conclusion from the higher percentage of samples fit for human consumption. Nevertheless the considerable increase in such specimens examined in the Southern Laboratory (45.33 per cent for milk, 27.08 per cent for water) demonstrates the increasing interest in, and appreciation of, the service provided in that area.

Pathology

Dr. Macgregor reports that the service offered to rural hospitals through the examination of surgical specimens continued to dominate the work in the Department of Pathology. During the year gross and microscopic reports were made on 11,572 surgical specimens. In this large routine, unsuspected cancers, which might otherwise have passed unrecognized, were not infrequently disclosed. Such cases could not have been diagnosed by any method other than microscopic study.

The examination of smears prepared from body fluids for the presence of tumor cells has already been referred to as a matter of increasing importance. In this group are included vaginal and cervical smears, sputum, bronchial washings and gastric secretions. Reports were made on 366 examinations of this kind during the year.

The examination of autopsy tissues for rural practitioners is also increasing, and tissues from 160 cases were examined during 1951. The interest of the rural practitioner in autopsy studies of his cases is a healthy index of the state of rural practice in the Province of Alberta.

Blood smear and bone marrow biopsies were reported upon in 182 cases. The Ascheim Zondek test for pregnancy was carried out in 459 cases. Medico-legal autopsies and other medico-legal examinations have dropped off considerably in number over previous years.

Figures obtained from Dr. Shute of the Calgary Laboratory also show a considerable increase in the demand for such services. Pathological histological material showed an increase of 70 per cent over last year, and this striking figure was actually surpassed by the examinations of fluids for cancer cells.

Table XIV.—Work Performed in the Provincial Laboratory of Public Health, Edmonton, during the year 1951

	Total 1950	Total 1951	Increase	Decrease
Sputum Examination	836	982	146	.....
Diphtheria and Haemolytic streptococci....	5,492	5,312	.....	180
Typhoid Fever (Agglutination Test)	1,896	2,039	143	.....
Milk	1,386	1,438	52	.....
Water	4,127	4,233	106	.....
Guinea Pig inoculations	2,047	2,103	56	.....
Miscellaneous Bacteriology	7,465	7,542	77	.....
Blood Cultures	680	827	147	.....
Enterobacteria and Intestinal Parasites.....	2,928	3,308	380	.....
Urinalysis	25	15	.....	10
Medico-legal (Blood, Seminal, etc.).....	7	4	.....	3
Cerebro-spinal fluids for the Wassermann Test	2,414	2,189	.....	225
Bloods for the Quantitative Kahn Test....	1,639	1,493	.....	146
Bloods for the Wassermann Test.....	6,819	9,865	3,046	.....
Bloods for the Standard Kahn Test.....	6,748	9,869	3,121	.....
Bloods for the Presumptive Kahn Test....	68,127	70,755	2,628	.....
Smears for Gonococcus	8,763	9,263	500	.....
Cultures for Gonococcus	1	802	801	.....
Pathological Histological material	10,363	11,572	1,209	.....
Blood Smear Examinations	88	156	68	.....
Post Mortem Examination (Edmonton).....	385	374	.....	11
Post Mortem Reports (Outside Points)....	104	160	56	.....
Ascheim Zondek Tests	564	459	.....	105
Comparative Series	2	.....	.....	2
Fluids for Cancer Cells	294	366	72	.....
Cancer Cytology	66	53	.....	13
Bone Marrows	51	26	.....	25
Cerebro-spinal fluid, examination (Col- loidal Gold, Pandy)	3,331	2,421	.....	910
Bacteriological examinations (P.M.).....	22	33	11	.....
B. abortus examination (Agglutination Test)	1,860	2,516	656	.....
P. tularensis (Agglutination Test)	1,860	2,039	179	.....
B. melitensis (Agglutination Test)	2	.....	.....	2
Antibiotic sensitivities, etc.	1,374	8,266	6,892	.....
Mycological examinations	356	570	214	.....
Cattle Blood (Bang's disease, Agglutin- ation Test)	146	.....	.....	146
Weil Felix .....	.....	4	4	.....
Total	142,268	161,054	20,564	1,778

Table XV.—Work Performed in the Provincial Laboratory of Public Health, Southern Branch, during the year 1951

Sputum Examinations	3,887
Diphtheria and Haemolytic Streptococci	309
Typhoid Fever (Agglutination Test)	903
Milk	753
Water	1,154
Guinea Pig inoculations	650
Miscellaneous Bacteriology	580
Blood Cultures	136
Enterobacteria and Intestinal Parasites	315
Urinalyses	2,447
Medico-Legal (Blood, Seminal, etc.)	
Blood Counts	1,240
Biochemistry Investigations	134
Cerebro-spinal fluids for the Wassermann Test	661
Bloods for the Quantitative Kahn Test	318
Bloods for the Wassermann Test	3,145
Bloods for the Standard Kahn Test	2,876
Bloods for the Presumptive Kahn Test	23,243
Smears for Gonococcus	3,137
Van Den Bergh Determinations	3
Pathological Histological Material	3,446
Blood Smear Examinations	108
Post Mortem Examinations	6
Histology from Post Mortems	40
Ascheim Zondek Examinations	
Fluids for Cancer Cells	79
Cerebro-spinal Fluid Examinations (Colloidal Gold, Pandy)	699
Bacteriological Examinations (P.M.)	
B. abortus Examinations (Agglutinations Test)	907
B. tularensis (Agglutination Test)	907
B. militensis (Agglutination Test)	
Cattle Blood (Bang's Disease—Agglutination Test)	
Bone Marrow	1
Total.....	52,084

Report of the Director of the Industrial Laboratories, Mr. J. A. Kelso

I would give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the year July 1, 1951, to June 30, 1952.

Table XVI—Examinations and Analyses

Acid	5	Bone Meal	2
Alcohol	2	Brain, for alcohol	37
Alfalfa Meal	7	Brake Fluid	2
Alloys	4	Bread	3
Aluminum	2	Brine	3
Antifreeze	6	Briquettes	6
Asbestos	1	Breakfast Cereal	1
Asphalt	17	Bronze	2
Babbit Metal	1	Butter	5
Barytes	7	Calcite	1
Bentonite	7	Candy	3
Bitumen	1	Cement	7
Blood	89	Cerebral Spinal Fluid	2
Bones	1	Cheese	3

Chlorine Compounds	2	Lime	12
Cigarettes	3	Limestone	14
Clay	13	Linseed Oil	1
Cleanser	1	Magnesite	1
Cloth	8	Marble	2
Clothes	17	Margarine	3
Coal	180	Marl	11
Codliver Oil	1	Meat	21
Coffee	2	Meat Meal	6
Concrete	26	Medical Chemicals	3
Core	3	Medicine	12
Cream	2	Mica	4
2-4-D	11	Milk	17
D.D.T.	1	Minerals	4
Deposits	14	Miscellaneous	8
Dust	5	Molasses	2
Dye	5	Moss	2
Egg Melange	6	Mortar	3
Fat	20	Mud	3
Feed:		Mushroom	1
Animal	141	Narcotics O. & N.D. Act Ex-	
Poultry	3	hibits	61
Concentrates	7	Oats	6
Fire Exhibits	2	Ochre	9
Flax	29	Oilcake Meal	5
Flour	16	Oil:	
Food: Human	17	Crude	3
Fossil	3	Lubricating	9
Fruit	2	Protective	4
Fruit Juice	1	Fuel	8
Fungii	1	Oil Residue	1
Galena	2	Ore	119
Gasoline	22	Paint	8
Glauber Salts	11	Paint Remover	4
Glass	1	Paper	1
Grain	16	Paving	3
Gravel	3	Pills	4
Grass	1	Pipe Metal	1
Granite	2	Pitch	2
Grit	1	Plants	2
Gypsum	2	Plaster	17
Hair	4	Poison Exhibits:	
Hay	5	Miscellaneous	4
Honey	45	Human	123
Hoof Meal	3	Police Exhibits, Miscellaneous...	4
Industrial Chemicals	22	Powder	9
Insects	3	Pyrite	2
Insecticides	2	Rock	23
Iron Pyrite	2	Salve	1
Iron Oxide	1	Sand	15
Iron	1	Sandstone	4
Jam	1	Salt	7
Lard	1	Scale	1
Liquor:		Schist	9
Detailed for A.L.C.B.	35	Shale	10
Malt for A.L.C.B.	850	Silage	3
Miscellaneous	7	Sludge	5
Police Samples	168	Silver Polish	1
Liquid	3	Soap	13

Soap Powder	25	Water:	
Sod	2	Sanitary	1348
Soils	52	Poison	5
Solder	1	Industrial	16
Steel	29	Wax	3
Stucco	1	Weed	2
Sugar	3	Wheat	37
Sulphur	1	Wood	2
Tallow	2	Veterinary Specimens	637
Talc	1	Engineering Materials:	
Tankage	10	Concrete Cylinders	8140
Tile	5	Electrician Gloves	288
Tea	2	Lightning Arresters	69
Tobacco	3	Wire Rope	4
Tufa	2	Lightning Rod Cable	2
Urine	58	Oil Testing	1
Vegetables	1	Operating Pole	6
Vinegar	2		
Volcanic Ash	3	Total	13,377

Engineering materials are handled in conjunction with the Departments of Civil and Electrical Engineering. As required, analyses were made for investigations carried out for various Provincial Government departments—Attorney General, Agriculture, Alberta Liquor Control Board, Mines and Minerals, Health, Veterinary Laboratory. The Provincial Analyst is required to make control analyses on liquors sold by the Alberta Liquor Control Board and to make inspections of the various breweries and distillery of Alberta Distillers, Ltd. Chemical examinations as required by Provincial Laboratory and Department of Pathology are carried out by the Provincial Analyst.

We have a very satisfactory working agreement with the Research Council, particularly the Oil and Gasoline Testing Laboratory.

Necessary court evidence was given under Provincial and Dominion acts and regulations under the Criminal Codes.

Required analyses were made for various police forces, and the Provincial Analyst must at all times be available for court prosecutions and in most cases make personal analyses.

Detailed analyses were made of some 1,348 waters for sanitary purposes and on 637 exhibits from the Veterinary Laboratory.

A considerable amount of research had to be carried out on methods of analyses.



REPORT
OF
THE GOVERNORS
OF THE
UNIVERSITY OF ALBERTA
1952-53

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To the Lieutenant Governor in Council

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to submit through the Minister of Education the Report of the University of Alberta, setting forth the revenues and expenditures for the year ending March 31, 1953, and the investments as they stood at the end of the fiscal year.

Appended to this report is the Report of the President of the University, in which the academic work of the University for the year, July 1, 1952, to June 30, 1953, is dealt with in detail.

C. M. MACLEOD, Chairman

A. STEWART, President

November 30, 1953

Financial Statements

UNIVERSITY OF ALBERTA BALANCE SHEET AS AT MARCH 31, 1953

STATEMENT A

ASSETS

Fixed:			
Buildings and equipment in service:			
Land, buildings and plant, Schedule No. 1	\$10,839,685.50		
Furnishings and equipment, Schedule No. 2	2,237,426.62		
			\$13,077,112.12
Loan receivable:			
Students' Union re Students' Union Building, see contra			340,712.72
Investments:			
Provincial direct and guaranteed debentures at book value (market value \$197,625.00), Schedule No. 5			197,340.00
Current:			
Cash on hand and in bank	\$ 373,906.84		
Accounts receivable:			
Sundry debtors	\$ 81,206.57		
Less: Reserve for doubtful accounts	2,500.00		
	\$ 78,706.57		
Government of the Province of Alberta re construction of buildings	123,479.72		
		202,186.29	
Accrued interest		4,708.33	
Merchandise held for resale, Schedule No. 4		83,387.10	
			664,188.56
Prepaid expenses:			
Supplies on hand, Schedule No. 4	\$ 80,451.64		
Unexpired insurance	29,848.81		
Legal retainer fee	375.00		
Unemployment insurance stamps	349.26		
			111,024.71
Other assets:			
Livestock inventory	\$ 26,732.00		
Deposit, Workmen's Compensation Board	8,564.00		
Agreement for sale	3,925.00		
			39,221.00
			\$14,429,599.11
Trust:			
Investments, book value, Schedule No. 5:			
Government of Canada, direct and guaranteed	\$1,371,300.00		
Provincial, direct and guaranteed	444,500.00		
Preferred shares	500.00		
Common shares	5,027.43		
		\$ 1,821,327.43	
Cash on hand and in bank	64,740.59		
Loans receivable	108,087.97		
Agreement for sale	300.00		
Real estate, shares and sundry, nominal value	8.00		
Suspense	39,717.24		
Due from General	85,565.60		
			2,119,746.83
			\$16,549,345.94

LIABILITIES

Capital and surplus:

Capital provided by the Government of the Province of Alberta	\$11,037,504.60	
Capital surplus	<u>2,117,537.33</u>	\$13,155,041.93

Loan payable:

Government of the Province of Alberta re Students' Union Building, see contra		340,712.72
Agreement for purchase of leasehold		<u>11,000.00</u>

Current:

Accounts payable	\$ 188,791.34	
Due to trust account	<u>85,565.60</u>	274,356.94

Deferred income:

Fees	\$ 8,045.99	
Other	<u>3,135.00</u>	11,180.99

Reserves:

Federal aid fund unexpended	\$ 277,316.23	
Premium on Rockefeller endowment	18,221.66	
University Athletic Board fees unexpended	16,337.42	
Library fees unexpended	15,188.52	
Workmen's Compensation Board	13,385.44	
Major alterations and repairs to faculty houses	12,000.00	
Rink repairs	2,358.95	
Dining room repairs and replacements	1,304.38	
Provincial Laboratory of Public Health, operating	46,046.16	
Operating, general	<u>235,147.77</u>	637,306.53
		<u>\$14,429,599.11</u>

Trust:

General endowment, Rockefeller Foundation	\$ 500,000.00	
Scholarships:		
Escheated estates	\$466,630.18	
General	<u>349,462.50</u>	
		816,092.68
Research		316,837.37
Students' grants and loans		135,359.98
General educational purposes		86,651.38
Pensions		43,618.32
Sundry:		
Administered by the University	\$ 62,691.68	
Held on behalf of others	<u>158,495.42</u>	
		<u>221,187.10</u>
		2,119,746.83
		<u>\$16,549,345.94</u>
		=====

Edmonton, Alberta, August 5, 1953

I have audited the books and records of the University of Alberta for the year ended March 31, 1953.

Operating Results

Operations for the year under review resulted in a surplus of \$255,086.77 after providing \$5,323.64 from current revenue for expenditure on new buildings and equipment. Details of operations are shown in Statement B and accompanying schedules.

The surplus for the year was transferred to operating reserve. Transactions within that reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and Calgary has been provided by the Province direct.

Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Inventories of merchandise for resale and supplies on hand are certified as to quantities and prices by officials of the University.

Capital and surplus transactions during the year are summarized hereunder:

Capital provided by the Government of the Province of Alberta:		
Balance as at April 1, 1952	\$10,376,709.13	
Add:		
Advances during the year:		
Engineering building	498,599.95	
Agriculture building	26,771.29	
Paving	29,299.54	
Other buildings and improvements	21,770.04	
Equipment	84,354.65	
		\$11,037,504.60
Capital surplus:		
Balance as at April 1, 1952	\$ 1,849,491.54	
Add:		
Acquired from trust and donated funds:		
Banff school administration building	138,733.91	
Cancer research laboratory	69,941.39	
Equipment	920.28	
Library	566.63	
Provided from reserve funds:		
Buildings	20,286.60	
Income contributions:		
Buildings and equipment	5,323.64	
Library	32,273.34	
		2,117,537.33
		\$13,155,041.93
		=====

Subject to the foregoing remarks, I certify that, in my opinion, the above Balance Sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1953, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, F.C.A.
Provincial Auditor

UNIVERSITY OF ALBERTA
STATEMENT OF REVENUE AND EXPENDITURE
FOR THE YEAR ENDED MARCH 31, 1953

REVENUE

Grants:

Province of Alberat:		
General	\$1,700,000.00	
Debt charges, see contra	303,766.10	
	<u>\$2,003,766.10</u>	
Government of Canada:		
Federal aid	477,240.00	\$2,481,006.10

Fees:

Tuition, Schedule No. 7	\$ 685,577.49	
Examinations and special, net, Schedule No. 8	7,865.22	693,442.71
Interest on Rockefeller Foundation endowment	\$ 15,000.00	
Deduct: Transferred to medical research trust	<u>5,000.00</u>	
		10,000.00
Library fees, see contra		19,093.84
University Athletic Board fees, see contra		14,495.19
Operating departments net revnue, Schedule No. 21		17,095.20
		<u>\$3,235,133.04</u>

EXPENDITURE

Instructional expenses:

Instructional salaries and direct expenses, net,		
Schedule No. 9	\$1,919,489.10	
Maintenance of builings, Schedule No. 10	312,000.17	
Administrative salaries and expenses, Schedule No. 11.....	107,698.03	
Library salaries and expenses, Schedule No. 12	107,536.01	
Upkeep of grounds, Schedule No. 13	42,518.30	
Provision for library accessions, see contra	19,093.84	
Provision for University Athletic Board expenses,		
see contra	14,495.19	
Calendars, scientific and other publications,		
Schedule No. 14	13,432.59	
Student guidance office, Schedule No. 15	13,052.36	
Library salaries and expenses, Caglary Branch,		
Schedule No. 16	7,410.26	
Alumni office, Schedule No. 17	7,289.78	
Provost's office, Schedule No. 18	6,914.38	
Travelling expenses, instructional staff	4,583.77	
Pension arrears, Schedule No. 19	3,048.24	
First-year committee	249.96	
Exchange	<u>201.35</u>	
		\$2,579,013.33
Public service departments net expenditure, Schedule No. 20		91,943.20
Debt charges, see contra		303,766.10
Buildings and equipment purchased from income,		
Schedule No. 6		5,323.64
		<u>\$2,980,046.27</u>

Surplus for the year ended March 31, 1953, transferred
to operating reserve

\$ 255,086.77

UNIVERSITY OF ALBERTA
STATEMENT OF OPERATING RESERVE
 FOR THE YEAR ENDED MARCH 31, 1953

Balance as at April 1, 1952	\$ 5,075.10
Deduct: Sundry adjustment	151.21
	<hr/>
	\$ 4,923.89
Add:	
Surplus for the year ended March 31, 1953	255,086.77
	<hr/>
	\$260,010.66
Deduct:	
Transfer to Provincial Laboratory of Public Health operating reserve:	
Excess of revenue over expenditure	24,862.89
	<hr/>
Balance as at March 31, 1953	\$235,147.77
	<hr/> <hr/>

*To the Governors of the
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1953.

A. STEWART
President

The Report of the President to Convocation

November 1, 1952

At each of the Fall Convocations in 1950 and 1951 I had to report a decline in the number of students registered in the first year, i.e. entering the University for the first time. Graduation of student veterans and the decline in civilian enrolments in the first year presaged a continuous decline in total student numbers and in the number of students graduating each year. In view of the anticipated expanding demand for the services of technically and professionally educated persons in Alberta, the expected reduction in the flow of graduates from the Provincial University was to be regretted. It is therefore gratifying to report some increase in registrations for 1952-53.

As at October 22 the number of full-time students was 3,348, an increase of 133 over 1951-52. The principal factor in the small expansion is an increase of 88 students in the first year. First-year registrations are up moderately in most programs of studies. There is a large increase—from 141 to 206—in freshman registration in Engineering. Education is the only faculty in which the number entering this year is less than the number in 1951-52. The decline in Education is entirely in the Temporary License program, i.e. the program in which the most generous financial assistance is offered to prospective students and into which the conditions of admission are easier than they are in any other faculty. It is difficult to explain the increase in first-year registrations. It would be equally difficult to determine objectively the reasons for the continued decrease in the number of students attracted to the Temporary License program.

In relation to the total demand for personnel, both skilled and unskilled, there is a general shortage of young people emerging from the schools of the Province. It is obvious, therefore, that we can, from the local scene, find more personnel for particular occupations only by withdrawing them from the flow entering other employments. Given the flow of young people through the schools and a tendency toward a continuously increasing demand, the only ways by which shortages can be avoided are (a) persuading everyone to work harder, (b) bringing in workers from elsewhere, or (c) limiting the expansion of demand. There appears, however, little disposition to recognize or admit the hard realities underlying the situation in which we find ourselves today. We proceed gaily on our way expanding educational, health, industrial and commercial facilities, without any prior consideration to the problem of securing the necessary trained personnel.

The supply of personnel for particular occupations depends on the relative attractiveness of alternative employments. Many factors enter into the comparison. Financial return is only one. Others include (a) a sense of importance and prestige, (b) consciousness of the opportunity to perform a useful service, and (c) the prospect of developing practised skills. It is possible to destroy these characteristics of an occupation to the point where it becomes relatively unattractive to those who have the chance to choose. Is not this very thing happening to the teaching profession? Members of the teaching profession

have over the last several years pursued a policy of belittling their own status in society. There has been a general loss of confidence in the usefulness of the service performed. Those who claim that teaching requires great competence and skill are on the defensive, if they are not already routed. Combine these conditions with the problem of discipline in the schools and there can be small wonder that young people prefer other occupations.

In the Evening Division, the University of Alberta has embarked on a new program designed, through the efforts of students enrolled in evening classes, to add ultimately to the number of University graduates. The program is aimed primarily at young men and women who, having left school and entered employment, now wish an opportunity for further education. The courses being offered include some required for the degree of Bachelor of Education, and others leading toward the degrees of Bachelor of Arts and Bachelor of Commerce. The particular Evening Division courses now offered in Edmonton are English 2, French 2, Political Economy 1, Philosophy 54, Education 326-526, and Education 308. English 2 is also offered in Calgary. There are 143 students registered in the six courses in Edmonton.

In addition to the Evening Courses for credit, the Extension Department is offering in the fall term nine non-credit evening classes, including Ukrainian Language and Literature, Conversational French, Music Appreciation, World Affairs, and Business Management. The total registration in these courses is 351. A similar program of evening classes will be offered after Christmas.

Report of the President to Convocation

May 14, 1953

Openings for University graduates, from all faculties, continue to exceed the numbers leaving the University. With the continuing development of the Province, favourable employment opportunities can be expected to persist. Our ability to meet the growing demands from within our own borders depends upon the inflow of students into the University. The number of Alberta students entering first year in September, 1952, was 1,151, or approximately 100 more than entered in September, 1951. Not all first-year students have full general matriculation, but it is significant that the number of Grade 12 students completing general matriculation requirements in 1952 was also about 100 more than in 1951. The principal determinant of the outflow of trained persons from the University is the outturn of students who have completed matriculation programs of studies in the high schools of the Province.

It has always been the case that some students, leaving high school with the qualifications required to proceed to University, fail to do so. At the last session the Legislature passed *The Students' Assistance Act* and appropriated an initial \$75,000 to establish a loan fund to assist students in need, particularly those students who might enter the first year. The fund will be administered by a Board, under the Department of Education, and high school students who wish to avail themselves of the assistance provided should make application to the Department. It is hoped that this new source of aid will bring to the University a significant number of the youth of this Province who would otherwise be unable to proceed with their education.

The first-year class of 1952 again indicates the manner in which the University serves the various parts of the Province. Greater Edmonton, with about

19.5 per cent of the population, provided 265 students, or 23 per cent of those entering. Calgary, with some 15 per cent of the population, provided 152 students, or 13 per cent of the total for the first year. The remainder of the Province, having 65.5 per cent of the population, was responsible for 734 first-year students, or 64 per cent of the total. Putting it another way: given the number of Edmonton students entering first year, an increase of 52 students from Calgary and 156 students from other parts of the Province would result in a general distribution of students entering University in proportion to population.

It is clearly impossible in the President's Report to Convocation to describe all the activities and accomplishments of a University year. One must select; and on this occasion I have chosen to say something about the research activities of the staff. During the year there was established at the University a Research Committee; and I am indebted to Dr. R. B. Miller and his colleagues on the committee for the comprehensive report they have prepared with the help of the departments.

The broad functions of a University are to preserve, transmit, and add to knowledge. Through its library and its personnel, the University is a repository of the heritage of knowledge; through its teaching it communicates knowledge from generation to generation. Research is the means by which the University makes its contribution to the ever-increasing stock of knowledge. Further, participation by the staff of a University in research is, at once, a vitalizing influence on, and a reflection of, enquiring minds. Staff are therefore expected to engage in research and must be provided with adequate opportunities to do so.

There are 197 full-time members of the instructional staff of the University of Alberta. The Research Committee has listed 347 research projects in progress.

Twenty-three departments reported a total of \$250,000 received in research grants. Fifty-seven per cent of these moneys came from agencies of the Government of Canada—the National Research Council, Defence Research Board, Dominion Department of Agriculture; 18 per cent was provided by the Province of Alberta, principally through the Research Council of Alberta; 19 per cent came from industry and non-commercial associations, e.g. the Canadian Cancer Society; and 6 per cent was derived from University endowments and general revenue.

Research under way touches a large portion of the total fields of human knowledge. Work is going forward on such varied topics as cancer, new surgical techniques, prevention of frost heaves on highways, pipeline flow of Alberta crude oils, development of rust-resistant strains of wheat, keeping qualities of canned butter, louseproofing of clothing, dressing of uranium ores, deodorant properties of chlorophyll, chemical weed control, carcass development in hogs, the history of Alberta, means to increase the progress of retarded pupils in public schools, treatment of speech defects, nature of oil-bearing rock formations, the theory of relativity, distribution of Alberta animals, the vegetations of Alberta, chemical properties of cellulose, and many others.

I have selected a few examples which I felt I might risk attempting to discuss briefly, and trust that the departments concerned will not be offended by this basis of selection.

Cancer research at the University, which has been stimulated by the provision of the facilities of the Dr. J. S. McEachern Laboratory, is being

carried out by staff in various departments, including the Departments of Anatomy, Biochemistry, and Chemistry. One project involves the search for chemical substances that promote cancer formation and which, if occurring in the human intestine as products of metabolism, could account for intestinal cancers. In both the Anatomy and Biochemistry Departments experiments are going forward with different hereditary strains of mice. Some strains are very susceptible to mammary cancer; others are highly resistant. The work in progress seeks to find factors that differ in the two kinds of mice—factors that could explain their different susceptibility to cancer.

The Canadian Formulary lists the multitude of drugs and preparations used in treatment of ailments of all kinds. As new treatments are discovered, the Formulary must be revised to include those that are approved. The School of Pharmacy at the University of Alberta has been given the task of selecting certain groups of external preparations for the Formulary. This involves the examination of hundreds of preparations and the selection of those that meet the required standards.

The Department of Plant Science covers a wide variety of research fields and lists fifty active projects. During the year a new variety of early-maturing barley, adapted to conditions in Northern Alberta, was licensed for distribution. The Department is making its contribution to fundamental research related to resistance of wheat to stem rust. Projects involving control of seed-borne diseases of grain with antibiotics have yielded interesting results, and studies in the field of crop physiology have disclosed the significant effects of some chemicals in improving storage quality and resistance to frost of such crops as sugar beets.

I have referred to some projects in the science departments. This type of research requires laboratory facilities and may be aided by graduate students. It is readily observed and recognized. In other fields library research is the principal method of scholarly enquiry. Although less obvious, it is no less exciting or time-consuming.

Members of the Department of Modern Languages are engaged in a study of eighteenth and nineteenth century France. The object is to illuminate the intellectual, social and moral climate in which were produced the major literary works of the period. The method in this case involves the study of and selection of extracts from original sources such as memoirs, private journals, correspondence, and official documents. Similar enquiries, too numerous to mention, have occupied the thought and energy of staff in other departments in the Faculty of Arts and Science.

Faculty members who are active in research attract graduate students to the department. Much of the research at the University is aided by graduate students. Every candidate for an advanced degree must complete a research project. Many candidates are preparing themselves for positions in which an understanding of research, or of its methods, is important.

During the past year the School of Graduate Studies was formally established, with Dr. O. J. Walker, Professor of Chemistry, as Director. The School reports 207 students working toward advanced degrees, and 56 special graduate students. There are 43 students proceeding to the degree of Master of Arts; 67 to the degree of Master of Science; 89 to the Master of Education; and eight to the Doctor of Philosophy.

Although the employment prospects on graduation are today unusually attractive, the conditions of our time require a continuous stream of young men and women—the ablest we have—with advanced training. The maintenance of this stream is an important function of the University.

* * * * *

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements; resignations; gifts; new scholarships, prizes and medals; staff publications; student registration; and reports of administrative officers.

Table I—Academic Staff Numbers

<i>Administrative Officers</i>		
President	1	
Assistant to the President	1	
Deans of Faculties	7	
Directors of Schools	5	
Director of the Calgary Branch	1	
Assistant Director of the Calgary Branch	1	
Director of the Summer Session	1	
Provost	1	
Assistant Provost, Calgary Branch	1	
Director of Student Advisory Services	1	
Dean of Women	1	
Librarian	1	
Superintendent of the University Hospital	1	
Registrar	1	
Assistant Registrar	1	
Alumni Secretary	1	
Bursar	1	
Accountant	1	
Purchasing Agent	1	
Wardens of Residence Halls	3	
	—	32
<i>Full-time Teaching Staff</i>		
Professors	52	
Associate Professors	48	
Assistant Professors	75	
Lecturers	38	
Instructors	14	
	—	227
On leave of absence:		
Professors	1	
Associate Professors	2	
Assistant Professors	3	
Lecturers	2	
<i>Part-time Teaching Staff</i>		
Professors	4	
Associate Professors	10	
Clinical Professors	9	
Assistant Professors	9	
Associate Clinical Professors	2	
Assistant Clinical Professors	1	
Lecturers	50	
Instructors	86	
Demonstrators in the Faculty of Education	180	
Demonstrators and student assistants	155	
	—	506

<i>Department of Extension</i>		
Director	1	
Assistant Professors	2	
Agricultural Secretary	1	
Supervisor of Visual Instruction	1	
Librarian	1	
	—	6
<i>Library</i>		
Librarian	1	
Assistant Librarians	9	
Assistants	7	
	—	17
<i>Industrial Laboratories</i>		
Director and Provincial Analyst	1	
Assistant	1	
	—	2
<i>Provincial Laboratory of Public Health</i>		
Provincial Bacteriologist and Director, Edmonton	1	
Director, Calgary	1	
Provincial Pathologist	1	
Assistants	3	
	—	6
<i>Other Staff</i>		
Dietitians	3	
Radio Secretary	1	
	—	4
Total		800
Less duplicates		32
<i>Total Academic Staff</i>		768

Table II—Academic Staff Appointments and Promotions

Faculty of Agriculture

- Brian Hocking, B.Sc., M.Sc., A.R.C.Sc., from Assistant to Associate Professor of Entomolgy.
- Alfred Stephen Ward, B.S.A., M.Sc., from Lecturer to Assistant Professor of Soils.
- Edward John Evans, B.Sc., Ph.D., Assistant Professor of Soils.
- Donald MacPhail Britton, B.A., Ph.D., Special Lecturer in Plant Science.
- Stanley Pethybridge, M.Sc., Sessional Lecturer in Animal Science.

Faculty of Arts and Science

- Francis Owen, M.A., Ph.D., Professor Emeritus of Modern Languages.
- Walter Hugh Johns, B.A., Ph.D., Dean of the Faculty of Arts and Science.
- Morden Heaton Long, B.A., M.A., F.R.S.C., Special Lecturer in History.
- John Macdonald, M.A., D.Litt., Special Lecturer in Social Psychology and Social Philosophy.
- Ross William Collins, M.A., B.D., Ph.D., F.R.Hist., Head of the Department of History.
- Dennis McNeice Healy, M.B.E., psc., B.A., Dip.d'Et., Sup., L-es-L., Docteur de l'Université, from Associate Professor to Professor of French and Head of the Department of Modern Languages.
- Douglas E. Smith, M.A., Ph.D., Head of the Department of Philosophy and Psychology.

Edgar Phibbs, M.A., from Assistant to Associate Professor of Mathematics.
Aylmer Arthur Ryan, M.A., from Assistant to Associate Professor of English.
Thorlief Fostvedt, B.Sc., M.D., from Lecturer to Assistant Professor of Mathematics.

George Klaus Horton, B.Sc., A.R.C.S., M.Sc., Ph.D., from Lecturer to Assistant Professor of Mathematics.

Reginald Charles Jacka, B.Sc., M.S., from Lecturer to Assistant Professor of Mathematics.

Leo Moser, B.Sc., M.A., Ph.D., from Lecturer to Assistant Professor of Mathematics.

Margery Walker MacKenzie, B.A., B.Ed., from Lecturer to Assistant Professor of Classics.

Robert Thomas Sharp, M.Sc., from Lecturer to Assistant Professor of Physics.

Frank L. Chubb, Ph.D., Special Lecturer in Chemistry, Calgary Branch.

Conrad Percival Gravenor, B.A., M.S., Ph.D., Lecturer in Geology.

Edward Bruce Hanson, Extension Lecturer in Music.

Ernest Reinhold, B.Sc., M.A., Lecturer in German.

Paul Rooney, B.Sc., Ph.D., Lecturer in Mathematics.

Henry Charles Finlayson, B.Sc., part-time Sessional Instructor in Mathematics.

Mabel Giles, part-time Instructor in Latin, Calgary Branch.

Anne Louise Gorham, B.Sc., Sessional Instructor in Botany.

Misae Hironaka, B.Sc., Sessional Instructor in Chemistry.

Gordon Ward Smith, M.A., Ph.D., Sessional Instructor in History.

George Zytaruk, B.A., Sessional Instructor in English.

James Edward Moore, M.A., Ph.D., Secretary of the Department of Zoology.

Matthew Henry Scargill, B.A., Ph.D., Administrative Officer of the Department of English.

School of Household Economics

Charlotte Wade, B.Sc., M.A., Lecturer in Household Economics.

Marion Elizabeth Lloyd, B.Sc., Sessional Lecturer in Household Economics.

Faculty of Dentistry

Kenneth Alan McMurchy, B.A., D.D.S., from Assistant to Associate Professor of Operative Dentistry.

George Archibald Brass, D.D.S., B.S.D., from Assistant to Associate Professor of Operative Dentistry.

James Douglas McLean, D.D.S., L.D.S., from Assistant to Associate Professor of Operative Dentistry.

William Orobko, B.Sc., D.D.S., from Assistant to Associate Professor of Operative Dentistry.

Robert Henry Blaquiere, D.D.S., from Lecturer to Assistant Professor of Prosthetic Dentistry.

Alan Douglas Fee, D.D.S., from Lecturer to Assistant Professor of Prosthetic Dentistry.

Harold Louis Samuels, B.Sc., D.D.S., from Instructor to Assistant Professor of Operative Dentistry.

Duncan Russel Stewart, D.D.S., from Instructor to Assistant Professor of Prosthetic Dentistry.

William Ross Stuart, D.D.S., from Instructor to Lecturer in Prosthetic Dentistry.
Louis Anthony Hague, D.D.S., from Instructor to Lecturer in Operative Dentistry.
Donald Eugene Florence, D.D.S., L.D.S., from Instructor to Sessional Lecturer in Oral Anatomy.
Donald Saunders Gilmour, D.D.S., from Instructor to Sessional Lecturer in Operative Dentistry.
Henry Arthur Grimsrud, D.D.S., Sessional Lecturer in Operative Dentistry.
Richard Christian McClelland, D.D.S., Sessional Instructor in Prosthetic Dentistry.

Faculty of Education

Milton Ezra LaZerte, B.A., M.A., B.Ed., Ph.D., Professor Emeritus of Education.
Wilfrid Pilkington, M.A., B.Ed., Assistant Professor of Education.
Cyril Hampson, B.A., Lecturer in Education, Calgary Branch.
Dorothy Lampard, B.A., M.A., Lecturer in Education.
Velma Irene Miller, B.Sc., M.Ed., Lecturer in Education.

Faculty of Engineering

Patrick Bouthillier, B.Sc., S.M., from Lecturer to Assistant Professor of Civil Engineering.
Gerald Wesley Sadler, B.Sc., from Lecturer to Assistant Professor of Mechanical Engineering.
Peter Dranchuk, B.Sc., Sessional Instructor in Petroleum Engineering.
Ivo John Dalla Lana, B.Sc., Sessional Instructor in Chemical Engineering.
David Smith, B.Sc., Sessional Instructor in Mining and Metallurgy.

Faculty of Law

Arthur Brian Weston, LL.B., B.C.L., Assistant Professor of Law.

Faculty of Medicine

Jules Tuba, M.Sc., Ph.D., from Associate Professor to Professor of Biochemistry.
Emil Otto Hohn, M.R.C.S., M.B., B.S., M.Sc., Ph.D., F.Z.S., from Assistant to Associate Professor of Physiology.
Gordon Edward Myers, M.Sc., Ph.D., from Assistant to Associate Professor of Microbiology.
James Hill Stirrat, B.Sc., M.B., Ch.B., M.D., from Associate Professor of Bacteriology to Associate Professor of Pathology.
Alfred Edwin Harper, M.Sc., from Lecturer to Assistant Professor of Biochemistry.
Edward Alexander Gain, B.A., M.D., F.A.C.A., from Instructor to Lecturer in Anaesthesiology.
Roy Henry Desmond Harris, M.Sc., Lecturer in Anatomy.
Matthew Joseph Gerrard Lynch, M.B., Ch.B., M.R.C.P., Sessional Lecturer in Pathology.
Gordon Reid Macdonald, B.Sc., M.D., Sessional Lecturer in Pathology.
Gordon Michael Allenby, M.Sc., Sessional Instructor in Biochemistry.
Gordon Orville Bain, B.Sc., M.D., Instructor in Pathology.

George Rene Boileau, B.Sc., M.D., F.R.C.S.(C.), Sessional Instructor in Clinical Surgery.

Robert James Bury, M.D., Clinical Instructor in Anatomy.

Andrew Cairns, M.D., Sessional Instructor in Clinical Medicine.

Gerald Goodall Copesteake, B.A., D.M.R.A., M.R.C.S., L.R.C.P., Sessional Instructor in Radiology.

Colin Scott Dafoe, M.D., C.M., Sessional Instructor in Clinical Surgery.

Frederick George Day, B.Sc., M.D., F.R.F.P.S., M.Ch.Orth., Sessional Instructor in Orthopedic Surgery.

William Albert Dexter, B.Sc., M.Sc., Sessional Instructor in Hygiene.

Creighton Robert Dobson, M.D., Sessional Instructor in Clinical Surgery.

Margaret C. Finlayson, B.Sc., Sessional Instructor in Parasitology.

Roger Montague Hall, M.D., D.M.R., Sessional Instructor in Radiology.

Edward Garland Kidd, B.Sc., M.D., Sessional Instructor in Clinical Medicine.

James Overgard Metcalfe, B.Sc., M.D., Instructor in Urology.

Robert Foster Scott, B.Sc., M.D., Instructor in Pathology.

Thomas John Speakman, M.D., M.Sc., F.R.C.S.(C.), Instructor in Neurosurgery.

Kathleen Anderson Swallow, B.Sc., M.D., Sessional Instructor in Paediatrics.

Jack Dean Taylor, M.Sc., Sessional Instructor in Biochemistry.

Raina Yanda, M.Sc., Instructor in Bacteriology.

John Douglas McGregor Alton, B.Sc., M.D., Sessional Demonstrator in Physiology.

Peter William Davey, M.D., C.M., Sessional Demonstrator in Pathology.

Dora Allison Newson, B.A., M.D., Sessional Demonstrator in Pathology.

Gordon Cameron, M.D., C.M., Teaching Fellow in Anatomy.

William Douglas Frew, M.B., Ch.B., D.R.C.O.G., F.R.C.S.(C.), Teaching Fellow in Obstetrics.

School of Pharmacy

Donald Clifford Hobbs, B.Sc., Sessional Lecturer in Pharmacy.

School of Nursing

Dorothy R. Colquhoun, B.A., R.N., Instructor in Nursing Education.

Patricia Louise Sharp, B.Sc., R.N., Instructor in the Basic Sciences in Nursing.

Department of Physical Education

Patricia Austin, B.P.H.E., M.A. Phys. Ed., from Lecturer to Assistant Professor of Physical Education.

Herbert John McLachlin, B.Sc., Phys. Ed., from Lecturer to Assistant Professor of Physical Education.

Doris Louise White, B.Ed., Lecturer in Physical Education.

Other Appointments

Osman James Walker, B.A., A.M., Ph.D., F.C.I.C., F.R.C.S., Director of the School of Graduate Studies.

George Samuel, M.A., Assistant to the President.

Alexander Gilmour Markle, B.A., B.J., Alumni Secretary.

Martin Louis Adamson, B.Ed., from Assistant Supervisor to Supervisor of the Division of Visual Instruction, Department of Extension.

Denys Noden, M.A., B.L.S., Library Assistant (Cataloguing).

Table III—Leave of Absence

Roy Torgny Berg, B.Sc., Lecturer in Animal Husbandry.
Charles Fred Bentley, M.Sc., Ph.D., Associate Professor of Soils.
Wilbur Fee Bowker, Q.C., B.A., LL.B., Professor of Law and Dean of the Faculty of Law (sabbatical).
Stanley Greenhill, M.D., D.P.H., Instructor in Clinical Medicine.
Alfred Edwin Harper, M.Sc., Assistant Professor of Biochemistry.
Charles Heath, B.Sc., Lecturer in Physiology.
Leroy Peterson Vernon Johnson, M.Sc., Ph.D., Professor of Genetics and Plant Breeding.
John Randolph Murray, M.Sc., Assistant Professor of Pharmacy.
Lewis Gwynne Thomas, M.A., Associate Professor of History (sabbatical).

Table IV—Retirements

John Macdonald, M.A., D.Litt., Professor of Philosophy and Dean of the Faculty of Arts and Science.
Morden Heaton Long, B.A., M.A., F.R.S.C., Professor of History.
Francis Owen, M.A., Ph.D., Professor of Modern Languages.

Table V—Resignations

Jean Downie Dey, Lecturer in Education.
Jeanette Fairbairn Doull, R.N., Demonstrator in the Basic Sciences in Nursing.
Elaine Anna Fildes, B.Sc., Phys. Ed., Lecturer in Physical Education.
Bohdan Jelinek, Dip. Ing., D.Sc., B.Sc., M.D., Assistant Professor of Biochemistry.
William Bernard Leach, M.D., M.Sc., Lecturer in Pathology.
Fenton Vincent MacHardy, B.E., Lecturer in Agricultural Engineering.
Frances U. McQuarrie, B.A., B.A.Sc., R.N., Supervisor of Instruction, School of Nursing.
John Warrington Neilson, B.A., D.D.S., M.Sc.Dent., Associate Professor of Periodontia and Preventive Dentistry.
George Schwindt, B.Sc., Instructor in Bacteriology.
Asbury Somerville, B.A., M.D., D.P.H., Instructor in Hygiene.
Leroy Allan Thorssen, B.Sc., M.S., Professor of Civil Engineering.
Ernest Hay Watts, B.A., M.D., Clinical Professor of Anaesthesia.
John Sheldon Wilson, M.D., Instructor in Pathology.

Table VI—Gifts

From the National Research Council, \$49,216.90 in accountable advances for research under the direction of the following staff members: J. P. Bowland, \$1,408.75; R. K. Brown, \$400; D. R. Clandinin, \$1,020; H. B. Collier, \$15.92; W. G. Corns, \$2,450; S. G. Davis, \$351.03; E. H. Gowan, \$550; W. E. Harris, \$1,100; R. C. Harrison, \$2,208.72; A. W. Henry, \$1,895; R. J. Hilton, \$1,405; E. O. Hohn, \$161.88; B. Jelinek, \$350; L. P. V. Johnson, \$1,020; E. O. Lilge, \$10,657.13; J. L. Morrison, \$1,430.47; A. G. McCalla, \$850; A. B. McCarten, \$2,400; K. B. Newbound, \$425; J. D. Newton, \$2,772.18; A. R. Robblee, \$1,430; D. B. Scott, \$1,717.75; L. M. Smith, \$450; J. Tuba, \$4,004.24; J. Unrau, \$5,642; J. Unrau and W. E. Smith, \$556.83; O. J. Walker, \$845; D. R. Wilson, \$1,500; S. Zalik, \$200.

From the Defence Research Board, grants for work under the direction of the following staff members: H. B. Collier, \$2,000; B. Hocking, \$200; E. O. Hohn, \$500; W. C. Stewart, \$3,300; F. W. Wood, \$1,725.

From the Department of Agriculture, Ottawa, grants to the following staff members: E. H. Moss, \$2,000; J. H. Stirrat, \$2,000; F. W. Wood, \$4,650; J. Unrau, \$15,650; and \$1,000 for co-operative vegetable trials.

From the National Cancer Institute of Canada, grants for research under the direction of the following: R. K. Brown, \$1,189.53; H. E. Rawlinson, \$600; R. B. Sandin, \$2,925; J. S. Thompson, \$789.44; J. Tuba, \$1,593.24.

From the Alberta Division, Canadian Cancer Society, a grant of \$1,200 to R. B. Sandin and a research fellowship of \$6,200 to K. Kowalewski.

From the Civic Employees of the City of Edmonton, through the Edmonton Branch of the Canadian Cancer Society, \$2,500 for cancer research.

From the Barley Improvement Institute, \$3,500 for research in the Department of Plant Science.

From the Upjohn Company, a research grant of \$2,000 to Dr. A. W. Henry.

From the National Grain Company Limited, \$1,000 for research on wild oat control under the direction of Dr. W. G. Corns.

From North American Cyanamid Limited, a research grant of \$1,800 to be divided between the Departments of Plant Science and Soils.

From United Grain Growers Limited, \$300 for poultry research in the Department of Animal Science and \$500 in continued support of oil seeds research in the Department of Plant Science.

From Line Elevators Farm Service, \$750 for winter wheat research in the Department of Plant Science.

From Maple Leaf Milling Company Limited, a further grant of \$500 for research on soft wheat in the Department of Plant Science.

From Robin Hood Flour Mills Limited, a further grant of \$500 for research on soft wheat in the Department of Plant Science.

From the Ellison Milling and Elevator Company Ltd., \$250 for research on soft wheat in the Department of Plant Science.

From the Prince Rupert Fishermen's Co-operative Association, Producer Division, a grant of \$300 for research under the direction of Dr. J. E. Bowstead.

From North West Mill & Feed Company Ltd., \$300 for travel of the staff of the Poultry Division, Department of Animal Science.

From the Prairie Roadbuilders' Section, Canadian Construction Association, \$500 for highway research in the Department of Civil Engineering, the fund to be known as the "Beattie Ramsey Memorial Research Fund".

From the California Spray-Chemical Corporation, \$500 for research under the direction of Dr. A. W. Henry.

From Golden Arrow Sprayers Limited, a grant of \$100 to the Department of Agricultural Engineering.

From Mr. J. E. Palmer, \$100 for experimental work in the Department of Agricultural Engineering.

From the Interprovincial Pipe Line Company, \$200 for operating supplies and materials in connection with the Interprovincial Fellowship pilot pipe line.

From Imperial Oil Limited, \$1,236 as the second payment on the study on "The Effects of Investment on the Economy of the Province of Alberta" in the Department of Political Economy.

From W. J. Gage and Company Limited, \$250 for educational research under the direction of Dr. G. M. Dunlop.

From the Mid-Pembina Women's Institute, \$25 for poliomyelitis research.

From the Weiss Geophysical Corporation, a camera with accessories for the Department of Physics.

From the Alberta Adult Education Association, a grant of \$3,001.03 to the Department of Extension.

From the John and Mary R. Markle Foundation, the fourth instalment of \$6,000 in support of the scholarship to Dr. D. R. Wilson.

From Mr. Claude Gallinger, two steers, Killearn Baron 40th and Killearn Cyril 12th.

From Mrs. Irene Gonsett, a further contribution of \$500 for the collection of Ukrainian books in the University Library.

From the Alberta Tuberculosis Association, \$200 for books on tuberculosis for the Medical Library.

Under the will of the late Dr. Harold Orr, to the Medical Library: files of the British Journal of Dermatology, the Archives of Dermatology and Syphilology, Journal of Investigative Dermatology, American Journal of Syphilis, and \$1,000 for their upkeep.

From Mrs. R. L. Rutherford, the late Dr. Rutherford's geological collections and books for the Department of Geology.

From Mrs. Herman Sharples, about 600 gramophone records for the Library of the Calgary Branch.

From Miss Mary Pinkham, a collection of books for the Library of the Calgary Branch.

From the French Embassy, Ottawa, a collection of books in French, valued at Fr. 50,000, for the Library of the Calgary Branch.

From the Alliance Francaise, Calgary Branch, \$45 to assist with binding the collection of books presented by the French Embassy.

From Mrs. H. J. Cody, \$35.25 to repair the set of Whitaker's Almanac which she has given to the University Library.

From the Ladies' Aid, St. John's Ukrainian Orthodox Church, Edmonton, \$25 for books on Ukrainian literature.

From the Ukrainian Self-Reliance League of Canada, Edmonton Branch, a portable typewriter with Ukrainian script, valued at approximately \$90, for use in the Department of Modern Languages in work connected with the Evening Division, and the Ukrainian Library.

From Mr. Owen Williams, "The Hillert Lectures" by Dr. J. Rhys, and a Welsh-English dictionary.

From Mr. C. S. Burgess, architectural books and journals.

From McMaster University Library, a set of the Historical Manuscripts Commission.

From Miss Linda McAdam, the diaries of her father, the late Ebenezer McAdam, with photographs, letters, etc.

From Mr. W. A. MacDonald, a portrait of the late Mr. M. R. Jennings, first editor of the Edmonton Journal, to hang in the Library.

From Mrs. John Imrie, a portrait of the late Mr. John Imrie, to hang in the Library.

From Mr. Cecil Rutherford, a portrait of the late Dr. A. C. Rutherford, to hang in the Library.

From Mr. Fred S. Haines, his painting, "Spring in Bruce's Woods".

From the Dental Alumni Association, portraits of Dr. E. A. Bulyea and Dr. H. A. Gilchrist.

From the Class of 1953, \$110 towards the purchase of a display case for the Library.

From the students of the first Course in Business Administration at the Banff School of Fine Arts, two firescreens for the lounges in Chalets Nos. 1 and 3.

From the Lord Abbot of Japan, a piece of tapestry.

From Mr. J. G. MacGregor, a collection of about 500 Indian stone implements.

From an anonymous donor, \$152 to assist needy students at the President's discretion.

From Mr. Gordon Comrie, a sewing machine for use in the Studio Theatre.

From the Seattle Repertory Playhouse, theatre equipment including stage sets, lighting equipment and costumes, valued between \$7,500 and \$10,000, for the Banff School of Fine Arts.

From Dr. R. W. Kullburg, \$20, Dr. D. J. Moffat, \$40, and Dr. W. A. Young, \$80, to the Medical Class of 1941 Loan Fund.

From Mrs. Frank Farley, \$1,000, Mr. A. L. Wilk's brothers, \$200, Miss Rosie Zachowski, \$100, MacCosham Storage & Distributing Co. Ltd., \$100, and five anonymous donors, \$200, to the Frank Farley Bird Book Trust Fund.

From the Friends of the University, a total of \$3,277: Mr. W. A. MacDonald, \$100; Mr. C. E. Garnett, \$100; Air Vice-Marshal G. Howsam, \$100; Mr. John Dower, \$100; Mr. D. K. Yorath, \$100; Mr. Meyer Sheckter, \$100; Burns & Co. Ltd., \$500; and 134 other Friends, \$2,177.

From the Alberta Division, Canadian Cancer Society, \$50,000, the final instalment of the \$160,000 grant to the Dr. John S. McEachern Cancer Research Laboratory.

To the building fund of the Banff School of Fine Arts, through the Banff Foundation: \$2,000 from Mr. Fred Stapells; \$1,000 from Mr. H. G. Love; \$500 from Mr. S. T. Hansen; \$3,333.33 from an anonymous donor; \$2,182, the balance of the gift of \$125,000 from Mrs. H. J. Woods; \$50,000 from Mr. E. L. Harvie.

Table VII—New Scholarships and Prizes

From the Alberta Wheat Pool, scholarships of \$500 a year during each undergraduate year up to five, to be awarded annually to two Alberta students from farm homes.

From the Navy League of Canada, \$1,000 for U.N.T.D. scholarships to be awarded to four cadets.

From the Alberta Range Riders, Calgary, and the Northern Ambassadors, Edmonton (Alberta Drug Travelling Fraternities), an annual bursary of \$300 to a student in the School of Pharmacy.

From the Hudson's Bay Company Retail Store, Calgary, an annual scholarship of \$300 in the School of Commerce.

From the Robert Tegler Trust, increase in the annual Research Scholarship from \$600 to \$900.

From Canadian Industries Limited, increase in the C.I.L. Fellowship from \$750 to \$900, and in expense allowance from \$250 to \$300 a year.

From the Fellowship of the Moose in Alberta, two \$100 scholarships, to be awarded annually for five years, for students of the Evening Division.

From the Western Daily Newspapers Advertising Managers' Association, renewal for a further term of five years of the annual scholarship of \$100 offered in the School of Commerce.

From the Canadian Club of Calgary, a scholarship of \$100 to a student entering the Calgary Branch, and a History prize of \$25 for award at the Calgary Branch.

From Clarkson, Gordon & Co., an annual prize of \$50 for award in the School of Commerce.

From the Institute of Chartered Accountants of Alberta, increase from \$25 to \$50 in the annual prize offered.

From the Edmonton Home Economics Association, an annual prize of \$25 in books for award in the Faculty of Education.

From Mrs. Ethel Gillespie, a prize in surgical nursing in memory of Dr. W. F. Gillespie, to consist of a piece of floral china to the value of \$15.

From an anonymous donor, the Operating Room Nursing Prize of \$15.

From the Women's Auxiliary of the University of Alberta Hospital, a \$10 book prize for award in the School of Nursing.

From the Editorial Board of the Canadian Nurse, a two-year subscription to the Canadian Nurse magazine, for award in the School of Nursing.

For students of the Banff School of Fine Arts: from the Canadian Association of Broadcasters, a \$200 scholarship; from Mr. H. S. Craig, a scholarship of \$100 in the watercolour classes; from Mrs. Pearl Barnett, a scholarship of \$100 in the Drama Division; from Mr. M. Pechet, a scholarship of \$50 in the Art Division; from Mr. M. W. Coxworth, a scholarship of \$50; and through Dr. Ernesto Vinci, \$266.80 for scholarships, the proceeds of a concert at the Royal Conservatory of Music, Toronto, by students of the Banff School of Fine Arts.

For candidates of the Western Board of Music: from the Quota Club of Lethbridge, two \$50 scholarships; from Mrs. J. Dalen, Grande Prairie, the Dalen Music Store Bursary of \$25; from the Home and School Association of Rycroft, prizes of \$15 and \$10; from Mr. E. R. Taylor, Red Deer, the Canadian Nazarene College Prize of \$15.

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Table IX—Student Registration

	CIVILIAN					REHABILITATION					TOTALS				
	Male		Female		Total	Male		Female		Total	Male		Female		Total
	50-51	51-52	50-51	51-52	51-52	50-51	51-52	50-51	51-52	51-52	50-51	51-52	50-51	51-52	51-52
TOTAL REGISTRATION															
Full Session, Summer Session, Evening Division and Short Courses	2456	...	2555	...	5011	...	...	22	...	559	...	...	2993	3000	5817
													Add Cancellations:		
													Winter Session	137	130
													Summer Session	137	144
														5844	6091
1. Arts and Science															
B.A.	92	94	91	100	183	194	8	2	...	8	2	...	91	100	191
B.Sc.	241	295	69	72	310	367	9	6	1	10	7	...	70	73	320
B.A., B.Com.	...	5	...	...	...	5	...	...	...	...	...	...	...	...	...
B.A., B.Sc.Eng.	1	1	...	...	1	1	...	...	...	...	...	...	...	...	...
B.A., LL.B.	48	48	4	2	52	50	1	2	...	1	2	...	4	2	53
B.Sc., D.D.S.	6	...	...	...	6	...	...	...	...	...	...	...	...	...	...
B.Sc., M.D.	48	...	1	...	49	...	1	...	...	1	...	...	1	...	50
Pre-dental	18	19	...	...	18	19	...	2	...	2	...	...	...	...	18
B.Sc. after B.Ed.	2	...	...	...	2	...	1	...	...	1	...	...	...	...	2
B.A. after B.Ed.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
	456	462	165	174	621	636	20	12	1	21	13	...	476	474	642
Partials—															649
Regular	7	14	9	9	16	23	4	5	...	4	5	...	19	9	20
Evening Division	...	6	...	7	...	13	...	4	...	...	5	...	10	8	18
Calgary															
B.A.	3	8	4	3	7	11	...	...	...	...	...	...	4	3	7
B.Sc.	18	16	...	11	18	27	...	...	...	...	...	...	16	11	18
B.A., LL.B.	6	2	...	...	6	2	...	1	...	...	1	...	3	...	6
B.A., B.Sc.Eng.	...	1	...	...	...	1	...	...	...	...	...	...	1	...	1
Pre-dental	...	4	...	...	...	4	...	...	...	...	...	...	4	...	4
	27	31	4	14	31	45	...	1	...	...	1	...	32	4	31
Partials, regular	1	7	2	4	3	11	1	...	...	1	...	...	7	4	4
	483	493	169	188	652	681	20	13	1	21	14	...	503	506	673
2. Agriculture															
Partials	89	85	2	1	91	86	14	4	...	14	4	...	89	2	105
	...	1	...	...	...	1	1	1	...	1	1	...	2	...	1
3. Commerce															
Partials	86	92	14	16	100	108	3	1	...	3	1	...	93	14	103
Evening Division	...	1	...	...	...	1	2	2	...	2	2	...	3	...	2
	...	2	...	...	...	2	...	...	...	...	...	...	2	...	...

Table IX.—Student Registration—Continued

	CIVILIAN						REHABILITATION						TOTALS					
	Male			Female			Male			Female			Male			Female		
	50-51	51-52	Total	50-51	51-52	Total	50-51	51-52	Total	50-51	51-52	Total	50-51	51-52	Total	50-51	51-52	Total
4. Dentistry	75	98	101	3	3	78	43	22	65	43	22	65	118	120	3	3	121	123
5. Education	107	119	362	223	243	330	7	9	2	2	9	9	114	128	225	243	339	371
B.Ed., 4-year	1	2	1	1	2	3	4	4	2	2	4	4	4	4	4	4	4	4
B.Ed., 3-year	1	2	2	1	2	3	4	4	2	2	4	4	1	2	2	2	2	2
B.Ed., Agric.	2	4	15	9	11	15	8	8	2	2	8	8	14	6	9	11	23	17
B.Ed. in Ind. Arts	30	24	47	19	23	49	2	2	2	2	2	2	30	26	19	23	49	49
B.Ed. after B.A., B.Sc. etc.	44	30	178	158	148	202	178	178	178	178	178	178	44	30	158	148	202	178
B.Ed. in Phys. Ed.	190	179	604	409	425	599	23	13	2	2	13	13	213	192	411	425	624	617
Temp. License	22	14	44	49	30	71	12	5	1	1	13	6	34	17	50	31	84	48
Edmonton, full time	13	23	93	30	70	43	4	1	1	1	4	4	13	23	30	70	43	93
Edmonton, partials—	21	20	20	1	1	1	1	1	1	1	1	1	25	21	1	1	25	21
Regular	1	12	94	85	82	96	1	1	1	1	1	1	2	1	86	82	97	95
Evening Division	11	12	94	85	82	96	1	1	1	1	1	1	11	13	86	82	97	95
Calgary	46	55	208	115	153	161	5	3	1	1	6	6	51	58	116	153	167	211
B.Ed., 4-year	8	13	38	34	25	42	1	4	1	1	1	1	9	17	34	25	43	42
B.Ed. in Ind. Arts	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B.Ed. after B.A., B.Sc. etc.	11	12	94	85	82	96	1	1	1	1	1	1	11	13	86	82	97	95
Temp. License	236	234	812	524	578	760	28	16	3	3	16	16	264	250	527	578	791	828
Partials	125	140	140	1	1	126	13	7	7	7	7	7	138	147	1	1	139	147
Special	64	77	77	1	1	65	2	5	5	5	5	5	66	77	1	1	67	77
Education, full time	51	59	59	23	23	23	6	1	1	1	6	6	57	64	57	57	57	64
Engineering	23	23	23	23	23	23	11	3	3	3	11	3	27	24	27	24	27	24
Chemical	67	72	72	67	67	67	2	2	2	2	2	2	78	75	78	75	78	75
Electrical	2	2	2	2	2	2	2	2	2	2	2	2	4	4	4	4	4	4
Mining	3	3	3	3	3	3	1	1	1	1	1	1	4	4	4	4	4	4
Petroleum	2	2	2	2	2	2	1	1	1	1	1	1	4	4	4	4	4	4
Irrigation	3	3	3	3	3	3	1	1	1	1	1	1	4	4	4	4	4	4
Eng. Physics	3	3	3	3	3	3	1	1	1	1	1	1	4	4	4	4	4	4
Eng. Geology	65	98	98	65	65	65	39	17	1	1	39	17	65	99	65	99	65	99
Not specified	403	473	473	2	2	405	7	1	1	1	7	1	442	490	2	2	444	490
Partials	5	2	2	5	5	5	3	1	1	1	3	1	12	3	12	12	12	3

7. Household Economics	B.Sc., H.Ec.	56	67	56	67	56	67	56	67
	B.H.Ec.	4	3	4	3	4	3	4	3
		—	—	60	70	60	70	60	70	60	70
8. Law		77	76	5	5	82	81	34	15	34	15
9. Medicine		140	183	12	15	152	198	67	27	3	3	70	30
10. Nursing, Edmonton	B.Sc.	104	103	104	103
	Diploma	161	194	161	194
	Dip. in Public Health	14	7	14	7
	Dip. in Teach. and Sup.	7	9	7	9	1	1
		—	—	286	313	286	313	1	1
Nursing, Calgary	B.Sc.	2	2
11. Pharmacy	B.Sc.	65	80	15	17	80	97	7	3	7	3
	Partials	2	1	1	2	2	2	2	2
12. Graduate Studies	M.A.	17	18	7	4	24	22	18	15	3	1	21	16
	M.Sc. (Arts)	22	20	3	3	25	23	6	3	6	3
	M.Sc. (Agric.)	8	8	8	8	17	9	17	9
	M.Sc. (Engin.)	11	10	11	10	5	2	5	2
	M.Sc. (Pharm.)
	M.Sc. (Med.)	2	2	1	2	3
	M.Ed.	16	12	7	5	23	17	19	10	1	20	10
	Special	13	23	7	12	20	35	8	9	8	9
	Ph.D.	1	5	1	5	1	3	1	3
	B.D.	15	12	1	16	12	5	5	5	5
		105	110	25	25	130	135	79	59	4	1	83	60
	Eve. Div. (M.Ed.)	8	8	5	5
	Eve. Div. Spec. Grad.	1	1	1
I. Total full-time students		1759	1932	1119	1231	2878	3163	334	183	12	5	346	188
13. Auditors	Regular	2	2	2	2	4	1	1
	Evening Division	7	8	15	1	1
14. Partials	Regular	43	54	95	68	138	122	30	24	1	1	31	25
	Evening Division	21	46	67	4	2	6

Table IX.—Student Registration—Continued

	CIVILIAN				REHABILITATION				TOTALS			
	Male		Female		Male		Female		Male		Female	
	50-51	51-52	50-51	51-52	50-51	51-52	50-51	51-52	50-51	51-52	50-51	51-52
15. Specials												
Regular	5	6	2	2	4	5	...	...	9	11	2	2
Evening Division	1	1	...	1	...	...	...	1	...	1	...	3
	1807	2023	1218	1358	3025	3381			2175	2241	1231	1367
												3608
II. Summer Session												
Edmonton	562	542	964	983	1526	1525	165	134	9	9	973	991
Banff School—												
Univ. credit	2	...	21	...	23	...	...	...	2)	...	21)	...
Non-Univ. credit	77	...	352	...	429	...	...	...	77)	83	352)	454
	641	...	1337	...	1978	...	165	...	...	759	1346	1445
									806			
												2152
												2204
III. Short Courses												
Diploma in Dairying	8	...	...	...	8	...	4	...	12	...	...	12
Adv. Practical Obstetrics	...	...	...	5	...	5	...	...	...	...	5	...
												5
GRAND TOTALS	2456	...	2555	...	5011	...	537	...	22	...	559	...
									2993	3000	2577	2817
												5570
												5817

Note: The Evening Division figures do not include 10 students also registered as regular students.

Table X—Distribution of Students According to Year of Birth, Sex, and Status as Rehabilitation or Civilian

AGE	CIVILIAN			REHABILITATION			GRAND TOTAL
	Male	Female	Total	Male	Female	Total	
16	9	13	22	....	....	....	22
17	75	100	175	....	....	....	175
18	218	302	520	....	....	....	520
19	287	295	582	....	....	....	582
20	317	199	516	3	....	3	519
21	286	138	424	....	....	....	424
22	260	90	350	1	....	1	351
23	194	34	228	1	....	1	229
24	115	25	140	1	....	1	141
25	79	22	101	9	....	9	110
26	39	19	58	21	....	21	79
27	23	8	31	29	1	30	61
28	13	5	18	27	2	29	47
29	11	6	17	16	....	16	33
30	6	6	12	28	....	28	40
31	7	5	12	8	1	9	21
32	8	3	11	22	....	22	33
33	7	9	16	12	1	13	29
34	9	10	19	5	1	6	25
35	4	5	9	4	....	4	13
36	5	6	11	8	....	8	19
37	5	6	11	7	1	8	19
38	4	3	7	1	....	1	8
39	5	3	8	3	....	3	11
40	5	3	8	....	....	....	8
41	1	6	7	1	....	1	8
42	8	7	15	2	....	2	17
43	6	6	12	4	....	4	16
44	2	3	5	....	....	....	5
45	2	4	6	2	....	2	8
46	2	2	4	....	1	1	5
47	1	3	4	....	....	....	4
48	5	2	7	1	1	2	9
49	1	2	3	....	....	....	3
50	1	3	4	....	....	....	4
51	2	1	3	....	....	....	3
52	....	1	1	....	....	....	1
53	1	1	2	1	....	1	3
54	....	....	....	....	....	....	....
55	....	....	....	....	....	....	....
56	....	....	....	1	....	1	1
57	1	....	1	....	....	....	1
58	....	1	1	....	....	....	1
	2024	1357	3381	218	9	227	3608

Table XI—Distribution of Students According to Home Address and Birthplace

	Home Address	Birth- place
British Empire-Commonwealth		
(a) Canada		
Alberta—		
Edmonton	1222	580
Red Deer	41	38
Vegreville	23	51
Wetaskiwin	16	26
Camrose	33	35
Others (on or north of Township 38)	777	1331
Calgary	498	398
Lethbridge	70	108
Medicine Hat	38	63
Cardston	17	31
Others (south of Township 38)	574	8
	<hr/>	<hr/>
	3309	2669
Nova Scotia .....	...	7
Prince Edward Island .....	...	2
New Brunswick .....	...	3
Quebec	4	17
Ontario	8	47
Manitoba	22	99
Saskatchewan	170	421
British Columbia	62	88
Yukon and Northwest Territories	8	3
Canada—not otherwise specified	2	8
	<hr/>	<hr/>
	3585	3364
(b) Other Parts of the British Empire-Commonwealth		
British Isles .....	...	59
Dominions	2	5
Crown Colonies	2	3
	<hr/>	<hr/>
	4	67
Countries Outside the British Empire-Commonwealth		
United States of America	7	48
Poland and Czechoslovakia .....	...	38
Russia and Ukraine .....	...	27
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey) .....	...	9
Scandinavian States (Sweden, Norway, Denmark, Iceland)....	1	9
Germany, Austria .....	...	2
France .....	...	1
Hungary .....	...	3
China and Japan	2	4
Others	4	30
Not specified	5	6
	<hr/>	<hr/>
	19	177
	<hr/>	<hr/>
	3608	3608

Table XII—Distribution of Students According to Pattern, Honors or Branch

	1st Year		2nd Year		3rd Year		4th Year		Partials		Total	
	51-52	52-53	51-52	52-53	51-52	52-53	51-52	52-53	51-52	52-53	51-52	52-53
Arts and Science												
Pattern—B.A.												
English	15	15	11	14	13	13	.....	.....	.....	.....	39	42
Music .....	.....	5	.....	3	.....	.....	.....	.....	.....	.....	8	8
Fine Arts	5	.....	4	.....	3	4	.....	.....	.....	.....	13	4
Foreign Language or Literature	6	5	4	3	8	2	.....	.....	.....	.....	18	10
History	5	9	4	7	13	3	.....	.....	.....	.....	22	19
Philosophy or Psychology	25	22	19	26	20	18	.....	.....	.....	.....	64	66
Political Economy	5	10	6	11	5	4	.....	.....	.....	.....	16	25
Political Science .....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	3	3
No pattern .....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Pattern—B.Sc.												
Chemistry	19	44	14	16	15	16	.....	.....	.....	.....	48	76
Mathematics	3	2	1	3	1	4†	.....	.....	.....	.....	6	9
Physics	9	4	6	4	6	10	.....	.....	.....	.....	21	18
Geology	26	40	17	20	17	17†	.....	.....	.....	.....	61	77
Botany .....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	2
Entomology	1	.....	3	4	3	2	.....	.....	.....	.....	7	6
Zoology	37	31	20	39	20	23	.....	.....	.....	.....	77	93
Special B.Sc. course	17	27	19	8	12	19	.....	.....	.....	.....	48	54
Experimental Psychology .....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	2	2
No pattern	12	3	.....	.....	1	.....	.....	.....	.....	.....	13	3
Honors												
Biochemistry	1	.....	1	1	.....	.....	1	.....	.....	.....	3	1
Chemistry	12	5	5	9	5	8	.....	.....	.....	.....	30	26
Classics	1	.....	.....	1	1	.....	.....	.....	.....	.....	2	4
Conservation Biology .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
English	2	3	2	6	.....	2	.....	.....	.....	.....	4	11
Geology	1	.....	1	3	.....	2	.....	.....	.....	.....	11	14
History	2	.....	.....	2	8	2	.....	.....	.....	.....	2	2
Mathematics	1	4	2	2	.....	2	.....	.....	.....	.....	4	8
Modern Languages	6	2	2	3	3	1	.....	.....	.....	.....	13	7
Psychology .....	.....	2	2	1	4	1	.....	.....	.....	.....	4	3
Physics .....	.....	5	4	2	3	3	.....	.....	.....	.....	9	10
Political Economy .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Engineering												
Civil	21	28	46	46	34	43	.....	.....	.....	.....	143	147
Chemical	*13	34	21	11	12	21	38	30	4	.....	73	77
Electrical	*16	18	13	19	10	17	21	11	6	.....	58	64
Mining	*3	3	6	7	9	6	9	10	1	.....	28	24
Petroleum	*21	27	17	18	18	12	22	18	.....	.....	78	76
Irrigation	*1	.....	.....	.....	.....	.....	3	.....	1	.....	4	.....
Engineering Physics .....	.....	.....	.....	.....	2	.....	2	2	.....	.....	4	2
Engineering Geology	*2	1	.....	.....	1	.....	2	1	.....	.....	3	2
Not specified	*65	99	.....	.....	.....	.....	.....	.....	.....	.....	65	99

*Indicates intention only. All first-year students in Engineering are registered in general course. †Plus 1 B.Sc. after B.Ed.

Report of Dean A. G. McCalla of the Faculty of Agriculture

The outstanding event of the current year is, of course, the start on construction of the new Agriculture Building. The building, to accommodate the Departments of Animal Science, Plant Science, and Soils, will provide much-needed space and enable each of these departments to consolidate its work in a single building, properly designed and equipped for such work.

Two members of the Faculty staff have been granted leave of absence to assist in agricultural work in underdeveloped countries. Dr. C. F. Bentley is directing soil conservation work in Ceylon under the Colombo Plan. Dr. L. P. V. Johnson is in Syria on plant-breeding work under F.A.O. auspices.

E. H. Strickland was elected a Fellow of the Royal Society of Canada and the first President of the Entomological Society of Alberta.

A. G. McCalla was elected a Fellow of the Royal Society of Canada and reappointed a member of the National Research Council of Canada.

The number of undergraduate students again decreased, but the size of the incoming classes appears to have been stabilized. Present indications are that about twice as many students as we now have are required to meet employment demands. There is a continued serious deficiency in the number of students registering for graduate work at the master's level. The Department of Plant Science accepted six candidates for the Ph.D., the first such registrations in the Faculty.

Research

Research continues to play an important part in the work of most of the agricultural departments. Financial assistance is received from a wide variety of sources and the assistance from outside the University budget plays a very important role in maintaining the research program. The contributions of money and materials from the National Research Council of Canada, the Defence Research Board, Canada Department of Agriculture, and from many commercial and industrial firms are acknowledged with sincere thanks.

It is obviously impossible to review all the projects being carried on. In reviews prepared for the University Research Committee, the six departments listed 96 active research projects. Only a few of the more outstanding or new projects can be mentioned individually.

The Department of Animal Science lists 24 active research projects. These are predominantly in the field of nutrition and vary from fundamental research on the effects of antibiotics on swine to the value of oat straw in rations for fattening steers. Poultry nutrition studies include basic studies on the effects of methods of processing oil-seed meals on the amino acids available in such meals. A new project on hatchability of turkey eggs has been initiated with financial assistance through the Alberta Research Council.

The Department of Dairying has continued with research largely concerned with butter and butterfat, including studies on the seasonal trends in the composition of Alberta butterfats. Dr. Thornton co-operated in the preparation of a report on the effects of substitutes on dairying submitted by the Alberta Dairymen's Association and the Alberta Federation of Agriculture to the members of the Alberta Legislature. Copies of an address given by Dr. Thornton at Lethbridge were sent to the members of the Manitoba Legislature by the Manitoba Dairymen's Association.

The Department of Entomology has continued studies on insect flight. Exceedingly interesting results have been obtained on speed, range, and efficiency in flight. Ingenious equipment has been developed in the course of this work. A number of other insect problems have been under investigation.

The Department of Plant Science listed 50 active projects. Research has been stimulated by the Ph.D. students and by the presence of Dr. D. M. Britton, a National Research Council Postdoctorate Fellow. The department covers a wide variety of research fields and substantial contributions have been made in most of these.

A new variety of early-maturing barley, named "Gateway", was licensed for distribution. Seed supplies will not be available until the fall of 1954. It is expected that the barley will be valuable in a large area in northern Alberta.

The Canada Department of Agriculture is providing a substantial grant, over a five-year period, for fundamental research related to resistance of wheat to stem rust. A full-time appointment at the Assistant Professor rank has been made as part of this plan.

Research involving control of seed-borne diseases of grain with antibiotics has attracted considerable attention. Some of the studies represent an entirely new approach, and results are promising.

The co-operative fruit-breeding project is progressing well. Last year was a very favorable season, and results should soon begin to be available.

Extensive research has been carried on in the field of crop physiology. The most outstanding new finding concerns the effect of some chemicals in improving storage quality and resistance to frost of such crops as sugar beets.

The Department of Soils initiated a very important new project last summer. One of the serious problems in irrigation is the suitability of soils for irrigation purposes. Plots were established near Youngstown in the proposed Red Deer Project, and the work will be expanded this year. The project is largely financed from funds provided through the Alberta Research Council.

Another very important, comparatively new project is concerned with the effect of heavy crop residues on subsequent crop yields. This problem is intimately associated with soil conservation and is an exceedingly controversial issue among Alberta farmers. Extensive experimental evidence is urgently required.

This department has continued its extensive interest in soil surveys, fertilizer tests, water erosion studies, and several other research fields.

Research is a very important part of the work of the Faculty. It plays an increasingly extensive role in supplying information needed in extension and in maintaining contact with farmers.

Extension

The outstanding extension event of the year was the co-operative conference with the provincial District Agriculturists. This meeting, held at the University, was the first of its kind and served to bring many of the research workers into direct contact with the provincial extension organization. Several staff members took active parts in the program.

As usual, faculty members took part in a wide range of extension activities. The thirty-first annual Feeders' Day was again attended by about 800 visitors. Visitors' Day in the Department of Plant Science was marred by rain but was

attended by an enthusiastic crowd. The Breton Soils' Field Day was attended by 300 despite showery weather.

Short courses, radio addresses, judging at seed fairs, attending many types of meetings, and extensive correspondence also took considerable time for most staff members.

Once again Agriculture students and staff took part in Varsity Guest Weekend. The many visitors on the campus saw something of the work being done in the Faculty. The Animal Science farm was a very popular place to many of the visitors.

The year can be summed up as being successful and productive. Our work would be more effective if our classes were larger. Nevertheless good students are being trained, the research program is being maintained, and our public relations appear to be reasonably satisfactory.

Report of Dean Walter H. Johns of the Faculty of Arts and Science

Progress During the Session

Changes in Regulations—A number of changes in the regulations of the Faculty were passed by the Council and later approved by General Faculty Council. These included:

(i) recognition of Accounting 1 as fulfilling the requirements of a C Division option in cases of students transferring from the combined course leading to the degrees of B.A. and LL.B. or from the School of Commerce;

(ii) clarification of the requirements for the degree of B.A. or B.Sc. in Arts after B.Ed. to call for a clear matriculation to the Faculty of Arts and Science, a total of 13 courses recognized by the Faculty of Arts and Science in the B.Ed. program, followed by six senior Arts and Science courses, four with at least second-class standing, the whole to satisfy the requirements of one of the patterns in the Faculty of Arts and Science;

(iii) a revision of the combined programs leading to the degree of B.A. and LL.B., and B.A. and B.Sc. in Engineering to bring them into conformity with existing regulations for the separate degrees.

New Courses—In addition to the approval of certain new courses in existing departments, the Faculty secured the approval of General Faculty Council for courses in two fields not previously covered. On securing authority from the Board of Governors to appoint an instructor in Geography, the Council approved two courses in this subject, one a junior C Division option in Physical Geography, the other a senior B Division option in Human Geography. The introduction of a course in Sociology was made possible by the co-operation of the Faculty of Education in allowing Mr. B. Y. Card, Assistant Professor of Education, to offer the course in the Faculty of Arts and Science.

In the field of Fine Arts, approval was secured for offering a Diploma Course in Art and concurrently a pattern in Art for the B.A. degree.

Course Changes—In addition to the usual modifications of courses called for by advances in knowledge, approval was secured for a number of radical revisions in the Departments of Mathematics and Physics necessitated by the change in the High School Curriculum in Mathematics. These will take effect in 1954.

Evening Division—The University this year instituted a program of evening classes for credit, and instruction was offered by the Faculty of Arts and Science in English 2, French 2, Political Economy 1, and Philosophy 54.

Departmental Reports

Botany—Dr. J. H. Whyte spent part of the summer of 1952 visiting Botanic Gardens and research laboratories in Britain. Dr. Cormack initiated the study of forest sites in western Alberta in co-operation with the Department of Lands and Forests, while Dr. Moss and Miss Kennedy continued their studies of airborne pollen in Alberta parks and ragweeds in the southeastern part of the province.

Chemistry—The registration in the Department of Chemistry was substantially higher in 1952-53 than in the previous year, the increase in Chemistry 40 at the Edmonton Branch being from 361 to 493. This places a very heavy strain on the laboratory accommodation of the Department and raises the question of time-tabling of laboratories. Although the number of graduate students and honors students has decreased, the Department reports a total of 35 graduate students enrolled for advanced degrees at various institutions in Canada and the United States. Members of the Department continue to carry on research and to take an active part in the affairs of the various regional, national, and international bodies in the field of Chemistry.

Classics—Dr. Johns began his duties as Dean of the Faculty of Arts and Science at the beginning of the session. Miss MacKenzie continued post-graduate study at Stanford University in the summer of 1952. Two graduates in Classics of this University received substantial fellowships in the United States for the past year and one of them, Miss Spence, has now been awarded the University Women's Club Travelling Fellowship for a year's study in Athens, Greece. In a dominion-wide Latin sight translation competition under the auspices of the Classical Association of Canada, one student of the Department ranked in the top five papers while three others ranked among the first ten out of a total of 80 candidates.

English—During the past academic session, Professor F. M. Salter asked to be relieved of his duties as Head of the Department in order to devote more time to research. Dr. M. H. Scargill carried on the administrative affairs of the Department on a temporary basis until April 1, when Professor J. T. Jones assumed the position of Head of the Department with Dr. Scargill continuing to act as Secretary.

Research in the Department covered a number of fields with the emphasis on candidacy for Ph.D. degrees on the part of Messrs. Ryan, Elder and Baldwin. Dr. Scargill spent the summer of 1952 at the University of Michigan in a study of stuttering and aphasia from a linguistic point of view. He has now established a small Speech Clinic on the campus to give therapy to students with speech defects. In addition he has spent some time working on a Handbook of English to be used in Alberta schools to be published by Longmann, Green and Co. Another novel by Dr. Denis Godfrey, *The Bridge of Fire*, is being published by Jonathan Cape this year.

Professor F. M. Salter has been honored by an invitation to give the Alexander lectures at the University of Toronto in the spring of 1954.

Fine Arts—The Department of Fine Arts continues to increase its service both intramurally and in extension work. In the field of Art, 11 centres were operated outside the Edmonton area with five members of the Art staff participating in the instruction. Professor H. G. Glyde was elected national Vice-President of the Federation of Canadian Artists and several members of the Department held exhibitions of their work throughout Western Canada. The

travelling exhibits sponsored through the Western Canada Art Circuit were displayed in the University for the benefit of staff, students and visitors to the campus. A number of gifts and loans were presented to the University by Canadian artists and others interested in the Arts and Crafts of Indians and Eskimos, and the Department collaborated with the National Gallery and the Department of Economic Affairs of the Provincial Government in sponsoring a speaking tour of Alberta by Dr. A. Y. Jackson and Miss Frances Loring.

The Drama Division concentrated their efforts in the work of the Studio Theatre and met with conspicuous success with their production of "Othello" in the Regional Dominion Drama Festival held at Lethbridge. Awards for both the best actor and the best actress were won by the play, and the play will compete in the Dominion Drama Festival to be held at Victoria this spring.

Enrolment in the Music Division was the largest last year that it has been since the organization of the Department, and both the string laboratory connected with Music 51 and 52 and the choral laboratories consisting of members of all courses had a very successful year.

Geology—Members of the Department of Geology continued their field research in the summer of 1952 as in previous years. Dr. Folinsbee studied the foothills structure in the Saunders basin, east of Nordegg; Dr. Stelck studied the stratigraphy of the Peace River area; Dr. Simpson investigated an area on the eastern slope of the Coast Range in British Columbia, and Dr. Gravenor the Pleistocene geology of an area in Ontario. The Department received a large number of contributions to its museum, including specimens of core samples donated by various oil companies for research in the study of the Precambrian rocks under the Plains area, gold samples from Yellowknife and palaeontological specimens from Alaska and Entwistle, Alberta. A number of graduates of the Department are currently carrying on study for the doctorate or other advanced degrees at various universities in Canada and the United States.

History—Members of the Department of History have continued to be active in research in a variety of fields. Professor M. H. Long is continuing work on the second volume of his History of the Canadian People, entitled *The Birth of British North America*. Mr. Thomas has been completing his *The History of Alberta, 1905-1921* during his sabbatical leave, and Dr. Collins is completing his work on *Renaissance and Reformation*, which should be published next year.

Mathematics—The Department of Mathematics, after seven years in the former University High School, look forward to moving to their new quarters in the Engineering Building before the end of the present academic year. One interesting development in the work of the Department was the establishment jointly with the Department of Physics of a series of colloquia by staff members of the two departments. These have proved valuable to both staff and students and have provided for a close collaboration in work of common interest.

Modern Languages—Mr. Ernest Reinhold, Lecturer in German, was this year awarded the travelling fellowship by the Humanities Research Council of Canada to assist him in completing his study of Franz Grillparzer in Britain for the degree of Ph.D. at the University of Michigan. Miss Glenda Gillard, sessional instructor in German, has been awarded a teaching assistantship at the University of California for the coming year. Two students graduating in Modern Languages, Miss Margaret Brine and Miss Joan Trout, have been

awarded assistantships in French Lycées by the Office national des écoles et des universités françaises.

Philosophy-Psychology—Professor Douglas E. Smith was re-elected to two offices held during the previous year, namely those of Vice-President of the John Howard Society of Alberta and Vice-President of the Edmonton Council of Community Services. Dr. Spearman will enrol for a course at the New School of Social Research in New York during June of this year. Miss Wilson has completed research here for the degree of M.A. at the University of British Columbia. The Department has been called upon for an increased contribution in the field of testing and counselling from students and from firms seeking advice on testing procedures. Members of the Department also carried on a program of lectures for the Department of Extension.

Physics—The Department of Physics has continued to carry out a very active program of research in a wide variety of fields. Dr. Gowan and his associates have continued their study of atmospheric ozone in the Edmonton area and on solar ultra-violet radiation. Mr. Sharp has completed studies of computations on the diamagnetic susceptibility of graphite which he will submit for the degree of Ph.D. at McGill this year. He has also collaborated with Dr. Horton of the Department of Mathematics in other quantum-mechanical calculations. Dr. Scott has been studying radioactive decay by double beta-ray emission, Dr. Newbound has been active in the determination of wavelengths on the spectrum of argon, Dr. Harrold is constructing apparatus for a study of explosion flames under the auspices of the Defence Research Board, and Dr. Grayson-Smith has continued the study of dielectric effects accompanying second-order transitions in crystals. Professor Nichols and Dr. Newbound have been making studies of formation of ice in the Bow River and Dr. Newbound has been active as an instructor in Civil Defence courses in the field of monitoring atomic radiation.

Political Economy—The Department of Political Economy has spent a very active year in research and in extension activities. In the field of research, the studies have been largely devoted to problems of the economy of Alberta, including a study of investment in the province, a study of local government carried on by Dr. Hanson for the Department of Municipal Affairs, and an appraisal of the proposed metropolitan school district for the Municipal District of Strathcona. Extension lectures were given by members of the Department to R.C.A.F. personnel, to a So-Ed series of the Y.M.C.A., and in other activities carried on under the auspices of the Department of Extension. Mr. Davy has assumed the task of serving as a representative on the speakers' panel of the United Nations in this area.

Zoology—The Department of Zoology over the past year has provided facilities for the work of two biologists of the Provincial Game Department and has contributed to the work of the Kananaskis Ranger School by lecturing at the School in November. Dr. Rowan acted as sessional chairman at the annual convention of the International Northwestern Conference on Diseases in Nature Communicable to Man and presented an address at the Convocation in September. Following the Christmas recess he also attended a study of animal cycles and populations held in Wisconsin. Research in the ten-year cycle has been continued by Dr. Rowan, while Dr. R. B. Miller has carried on his researches at the George Creek research station jointly sponsored by the Provincial Government and the Department. Dr. J. E. Moore has made further

contribution to his ecological survey of the terrestrial vertebrates in the mountain regions of Alberta throughout the past summer, adding substantially to the collection of specimens in the Department. During the past session the Department obtained, through the General Research Fund, the Dewey Soper Mammal Collection, one of the largest collections of small mammal skins in Canada. This will be of great value to the work of the Department in both teaching and research over the coming years.

Report of Professor Mabel Patrick, Director of the School of Household Economics

Registration for the degrees of Bachelor of Science in Household Economics and Bachelor of Household Economics this session is 68. This is an increase over last year. It is interesting to note the greatest increase is in the first year.

In addition, there are 116 nurses registered in the Department and there will be a special class of 24 this spring. This makes a total of 140. Seventy-five Education students are registered in the Department of Household Economics. This is a large increase over last year.

Two graduates of the School have been continuing their studies, one at the University of Alberta and one at Washington State College. These students have been on fellowships.

Although there are more students in the senior class this year, only ten have accepted student training appointments. This is fewer than last year.

Report of Dean W. Scott Hamilton of the Faculty of Dentistry

There was a total of 121 students registered in the Faculty during the session and 34 will graduate at Convocation, two of whom are displaced persons.

Five special candidates, recent immigrants to Canada, were examined during the session for admission as special students next session.

Dr. H. L. Samuels returned to the Faculty in September after a year's study at Tufts Dental College, Boston. By June of this year, Dr. R. S. Van Alstine will have completed three years' graduate study at the University of Michigan and will return to the Faculty in September.

The Faculty was represented at the meeting of the American Association of Dental Schools in Philadelphia, March 23rd to 25th, by Dr. Wm. Orobko.

In September we provided a refresher course for members of the profession, which was exceptionally well attended. This year several of the Faculty will participate in the program of the Western Canada convention at Jasper.

Members of the staff have occupied positions on various organizations and contributed to the programs as follows:

Dr. H. R. MacLean—President, Alberta Dental Association and member of the sub-committee of the National Research Council. On the program of National Convention at Vancouver. Was speaker at Red Deer, Calgary and Lethbridge on fluoridation of water supplies. He and Dr. S. G. Davies are directing a research project on *The Electro Potentials of Metals Used in Dentistry* and with Dr. O. J. Walker on *Analysis of Fluorides in Water Supplies*.

Dr. S. D. Fraser was on the program of the Pacific Coast Society of Prosthodontists in Los Angeles in March.

Dr. G. A. Brass attended the midwinter convention of the Chicago Dental Society and spent some time at Northwestern University in January.

From the standpoint of loss to the Faculty we regret that Dr. J. D. McLean has accepted an appointment to Dalhousie University but fully realize that in his new position he will have an opportunity to make a contribution to education. During the past year he served as Chairman of the Committee on Ethics of the Canadian Dental Association.

Report of Dean H. E. Smith of the Faculty of Education

The Faculty of Education sustained a serious loss in the untimely death of the late Dr. G. K. Sheane on August 15 at Calgary. Dr. Sheane was appointed to the Provincial Normal School staff in 1928 and in 1945 was transferred to the Faculty of Education staff in the rank of Associate Professor. By virtue of his activities as teacher, author and curriculum consultant he influenced very directly the growth and development of many thousands of young people.

Registrations in the Faculty declined from the 1951 level by 19, the greatest drop being in the Temporary License program, from 302 to 276. Small gains were recorded in other programs, yielding an overall registration of 965 compared with 984 in September, 1951.

The heavy demand for teachers and the favorable salary schedules have tempted many students to interrupt their University careers at the point of certification and to postpone their return to the campus. Nonetheless the number of students recommended for the B.Ed. degree at the October Convocation was 96 and the anticipated number for May 1953 Convocation is 79, a total of 175.

Fifty-one students, holders of the B.A. or equivalent degree, entered in September for certification and subsequently for the B.Ed. degree. Several of these were from American and European universities, presenting a rich variety of training backgrounds.

The Faculty continued its Wednesday evening programs over CKUA, this year under the title *Your Child at School*. On several of the programs the staff and students of the Elementary Demonstration School participated. Their assistance was greatly appreciated.

The entire staff participated in a *Brief on Teacher Shortage* which was presented to the Board of Teacher Education and Certification. The greater share of the work fell, however, to Dr. Baker, Mr. Card and Mr. Pilkington.

Divisional Reports

I wish to append reports from individual divisions as follows:

Elementary Education—In addition to their regular duties, members of the staff were active in various in-service projects:

- (a) Ten teacher institutes and conventions with all staff members co-operating.
- (b) Home and School provincial and national conventions—Miss Lampard, Mr. Hodgson, Miss Caldwell, Mr. Forbes, and Dr. McDougall.
- (c) Agricultural Institute of Canada—Dr. MacGregor.
- (d) Provincial Optometrist Convention and Canadian Psychological Convention—Miss Lampard.
- (e) Edmonton Art Club—Mr. Forbes.
- (f) Miss Lampard is Canadian Chairman of the National Association of Remedial Teachers, and National Chairman, Children's Reading Committee of the Canadian Home and School Association. Dr. McDougall

is Chairman, Edmonton Public Library Board. Mr. Card is Vice-Chairman of the Edmonton Branch of the Community Planning Association of Canada and delegate to the Winnipeg conference.

- (g) Dr. MacGregor, Mr. Hodgson and Miss Caldwell served on various committees of the Department of Education.
- (h) Published magazine articles were prepared by Dr. MacGregor, Miss Lampard, and Mr. Forbes.
- (i) Dr. McDougall has been elected Fellow of the American Association for the Advancement of Science.

The Division wishes to pay tribute to the efficiency, enthusiasm and professional competence of Mr. Cooney and the staff of the University Elementary School.

Secondary Education—Dr. H. S. Baker, in collaboration with Mr. C. H. Campbell, has written during the current year the third in a series of language textbooks for use in the junior high school. *Words and Ideas, Book 3*, was published by Gage and Company, Toronto, 1953, and is authorized for use in grade 9 classes in the province of Alberta.

Dr. J. W. Chalmers and Dr. Coutts have written three workbooks to accompany the anthologies in the *Prose and Poetry for Canadians* series. These workbooks, all published in 1953, are titled *My Literary Logbook* (grade 7), *My Literary Chronicle* (grade 8), *My Literary Diary* (grade 9). These workbooks have been published by J. M. Dent and Sons Canada Limited and have been approved for use in Alberta schools.

All members of the Division of Secondary Education are members of the Department of Education curriculum committees or subcommittees and are making a generous and distinctive contribution to curriculum development in this province.

Some members of the Division are acting in a consultative capacity during the spring workshop of the C.E.A.-Kellogg project in school administration and supervision.

Messrs. Sparby and Walker are continuing the research necessary to complete their doctoral dissertations.

Mr. Melsness has carried through a useful study of the reasons why teachers enter the profession. This study has been recorded as a colloquium paper to satisfy certain requirements in his M.A. program at the University of Minnesota.

Educational Psychology—The Education Clinic continued to occupy an important place in the program of this Division. A close liaison was maintained with clinical organizations in the city and with the Edmonton city school authorities. Two field trips were made, one to St. Paul and one to Camrose, each for two days.

Each field trip, planned well in advance, aimed at an intensive study of some 12 pupils, discussion of these cases with area teachers in later afternoon sessions, comprehensive recommendations for remedial treatment and, if possible, participation in a Home and School Association program. All work was done in close cooperation with the Provincial Director of Guidance and with the local Superintendent of Schools. This service appears to have been received most favorably.

At home the Education Clinic accepted 77 cases ranging from grade 1 to University level. These were classified as vocational, reading, academic achievement, speech and personality problems. In most instances two, and in some instances three, staff members co-operated. In addition, 336 individual mental tests were administered to city school children. Cases were accepted only if they served research purposes or promised to provide useful experiences to the students in Education 474—Education Clinic. Mr. George Asmann gave excellent service as a part-time assistant; and Mr. J. M. Chalmers, a graduate student, did a piece of research of particular merit with the Wechsler Intelligence Scale for Children. Dr. Rees acted as Director of the Clinic.

Dr. Clarke is a member of the First-Year Committee, of the Board of Examiners in Nursing, Chairman of the Faculty of Education Publications Committees, and represents the Faculty on various of the Department of Education Committees on Guidance. He and Mr. Pilkington have appeared on Career Nights at a number of gatherings in eastern and northern Alberta.

All members of the Division have responded to many calls for addresses at Home and School and other association meetings in central and northern Alberta.

Report of Dean R. M. Hardy of the Faculty of Engineering

The number of students in this Faculty is 504, compared to 460 last year. While the total registration is still considerably less than the peak of the post-war period in 1947-48, it has again commenced to rise.

The employment opportunities for both graduating and undergraduate engineering students remain exceptionally good, particularly in the Alberta area. The demand for graduates in all branches of engineering this year considerably exceeds the supply in this area. As long as industrial activity continues at its present level it is to be expected that the present shortage of young engineering graduates will continue. It is particularly unfortunate that the wide opportunities for graduates in Mining Engineering are not generally recognized by young men entering the Engineering Faculty.

Instruction at the graduate level has continued in each of the four engineering departments.

The senior member of the staff in the Mining Engineering Department continues as supervisor of research on the Athabasca Oil Sands project of the Alberta Research Council. This latter project is part of the program of the Atomic Energy Commission.

In the Department of Chemical and Petroleum Engineering, research programs have been continued but at a somewhat decreased level because of the difficulty of attracting graduate students in competition with work in industry. Mr. A. Masuda, Interprovincial Pipe Line Fellow for the session 1951-52, has carried out extensive experimental work on the *Pipeline Flow Characteristics of Selected Alberta Crude Oils*, using the pilot pipeline constructed with the financial assistance of the Interprovincial Pipe Line Company. Mr. P. Dranchuk, California Standard Fellow for 1952-53, has started a research project on the subject, *A Potentiometric Model Study of a Selected Alberta Oil Reservoir*. Work on two projects has been continued under the auspices of the Research Council of Alberta on their general program dealing with the utilization of natural gas. Work has been continued on the manufacture of carbon black from natural gas and a thesis on the topic, *The Partial Oxidation of Butane*, is now in process of preparation.

The Department of Chemical and Petroleum Engineering has continued its advisory services in connection with the Supervisory Training Program conducted jointly under the auspices of the Canadian Association of Oilwell Drilling Contractors, the Canadian Petroleum Association and the Extension Department of the University. In addition, one Oil-Treating School was conducted in co-operation with the Extension Department.

Research work continued in the Department of Civil Engineering on a number of projects. One major industrial development fellowship to the amount of \$15,000 was made available for graduate work in the field of soil mechanics. Work also was continued on the Highway Research Project financed with funds from the Alberta Research Council, the Prairie Road-builders' Section of Canadian Construction Association and the Canadian Construction Association. The detailed projects on which research continued were *Stabilization of Certain Types of Clay Shales by Electrical Means*; *Further Investigation of the Effects of Lignosol and Certain Other Admixtures in Preventing Ice Segregation*; *Effects of Certain Admixtures on Permeability of Soil*, and *Theoretical Analysis for the Determination of Bending Moment Diagrams for Rigid Frames*. Pilot plant studies were also carried out dealing with the topics of: prestressed concrete; correlation of cement slurry strengths used in oil-well cementing operations using waters heavy in sulphates, organic impurities and acidity; ground temperatures, and soil mass vibrations and critical frequencies.

The Civil Engineering Department, in co-operation with the Extension Department of the University and the Department of Asphalt Technology of Imperial Oil Limited, operated a five-day extension course in the field of soil mechanics for personnel from the R.C.A.F.

In the Department of Electrical Engineering, research work was continued on the harmonic content of the magnetizing circuits of rural distribution transformers.

Specialized technical service to industry was conducted by all four Engineering Departments. Relations between industry in the province and the Engineering Faculty have continued on a most satisfactory basis. An increasing interest on the part of industry in the support of research activities in the Faculty is apparent but the difficulty of attracting graduate students in competition with industry is a handicap at the present time which is preventing the University from fully availing itself of this support.

Report of Acting Dean Alexander Smith of the Faculty of Law

Student Enrolment

It is instructive to look at enrolments in the recent past. At the beginning of World War II the registration was approximately 20 students in each year. The numbers then fell off until in the 1944-45 session there were only two students in first year, four in second and three in third. From that low point there was then a gradual increase so that in the peak session of 1950-51, 55 prospective lawyers were graduated. Last session, that is in 1951-52, the number graduated was 44 and the number graduating in the present session is 33. Thus in the past three years there will have been released to the profession 55, 44 and 33 candidates respectively.

Employment of Graduates

A graduate in Law seeking enrolment in the Law Society of Alberta is required to serve for a period of one year as an articulated student-at-law with a qualified practitioner. In Alberta the demand for articulated students is brisk and graduates are absorbed into the profession without delay and without difficulty. All but two or three members of the present graduating class were placed before the end of the session. Those few not placed have had ample opportunities but for personal reasons have delayed making early commitments. The bulk of the placements were negotiated through the Acting Dean's office, which serves as an unofficial placement bureau. This service entails a great deal of correspondence and a large number of interviews, but the service is one which the Faculty is pleased and ready to give.

Staff

The Faculty has a complement of four full-time staff members. In a sense there are really five this session when Dean Bowker is included, who, however, is absent on sabbatical leave doing graduate study at Yale University. There is a happy diversity of educational backgrounds in the full-time staff. The Dean has his B.A. and LL.B. degrees from the University of Alberta, his LL.M. degree from the University of Minnesota and is presently pursuing a course of study at Yale University leading to a doctorate degree. Another member has his B.A. and LL.B. degrees from the University of Alberta and has done his Master's work at Stanford University. Another has his B.A. and LL.B. degrees from the University of Toronto. Another has his LL.B. degree from the University of Manitoba and has done his Master's work at the University of Toronto. Another has his LL.B. from the University of Western Australia and his B.C.L. from Oxford. Thus a condition of in-breeding has been avoided. All have had practical experience at the Bar.

In addition to the full-time members there are four Sessional Instructors, two of whom have LL.M. degrees from Harvard.

Curriculum

The curriculum is presently undergoing revision but the study in this connection has not yet proceeded to the point where changes can be implemented.

Library

The John Weir Memorial Reading Room, in the Rutherford Library, under the supervision of Law Librarian Mr. Mills Shipley, provides adequate and indispensable facilities for study. Major additions to the Library during the session have been the Commonwealth Law Reports and the United States Supreme Court Reports. These recent accessions have special significance in that they provide source materials for the study of Comparative Law, particularly in the field of Constitutional Law.

Special Talks to Students

Again, as in the past, special talks were arranged for the students. These had to do with specialized subjects such as, for example, Oil and Gas Law. These special lectures were competently delivered and well attended.

Graduate Study

Two members of the 1952 graduating class are engaged in graduate study,

Peter Loughheed at Harvard University and Patrick J. McCaffery at the University of Toronto. The Alberta Rhodes scholar for 1953 is David C. McDonald, a second-year Law student.

Research

One member of the staff has had published in Canadian legal periodicals book reviews and notes on recent judicial decisions. Another member has conducted research into the Law of Oil and Gas, digested and classified judicial decisions thereon and made a comprehensive compilation of the relevant conveyancing forms and precedents. In addition this same member delivered before the Philosophical Society a paper entitled *The Rule of Law—a Changing Concept*. Two members of the 1952 graduating class, Ivan L. Head and W. G. N. Egbert, have had published in the Canadian Bar Review notes on recent judicial decisions.

Law Society of Alberta

The relationship between the Faculty of Law and the Law Society is close and cordial. The Acting Dean, on the invitation of the Society, addressed the Annual Meeting of the Society in January at Calgary. This year an invitation has been extended to the Acting Dean, just as in previous years an invitation has been extended to the Dean, to attend the June Convocation of the Benchers of the Law Society to be held at Banff.

Conclusion

It is at once a responsibility and a privilege to teach young prospective lawyers—men who, like the Erskines of the past, are to carry with them into the community a love and respect for our time-tested traditions and institutions and, by example, inspire the same faith in others or renew it in those who have wearied. In no other age has there been a greater need for vision, wisdom and courage. It is considered that the lawyer, by virtue of his training and the habits of his professional life, is proof against the quick impulse of immaturity and the sudden surge of panic and is, therefore, the natural and steadfast custodian and protector of our traditions, institutions and our way of life. It is the duty of the Faculty of Law to teach such men.

Report of Dean John W. Scott of the Faculty of Medicine

Sixty applicants were admitted to the first year of the medical course in September, 1952, forming the largest first-year class in the history of the Faculty. The number of applications for admission is still large but it was possible to admit all of the qualified applicants from Alberta. In addition, two students from the province of Saskatchewan were admitted to the first-year class.

The resources and facilities of the Faculty are now stretched to the utmost and it is considered impossible to further increase the size of the first-year class without a corresponding increase in accommodation and staff for the basic science departments. The third-year class was swelled by the acceptance under agreement of eight students from the University of Saskatchewan Medical School.

The major function of the Faculty is considered to be the production of well-trained medical practitioners. Teaching and administrative duties, therefore, occupied a large part of the time of the staff during the eight-month term. The problem of maintaining a staff of well-qualified instructors in

competition with the lucrative lures of industry, professional practice, and the greener teaching and research fields of the United States, is still quite acute.

The Faculty suffered the loss of a highly esteemed member in the death of Dr. Harold Orr, Clinical Professor of Dermatology.

Graduate training is offered to students in both clinical and pre-clinical fields. In the Departments of Anatomy, Bacteriology, Biochemistry, Medicine, Physiology, and Surgery, students are working toward the degrees of M.Sc. and Ph.D. Graduate instruction is continued beyond the normal eight-month course; graduate students usually work a twelve-month year and are supervised throughout that time. The number of applications for graduate work is decreasing, apparently due to the inability of students to finance extra years of study.

Demands upon the time of the staff for extramural functions are becoming increasingly numerous. Staff members serve as officers of medical and research societies, both local and national; they present papers before the learned societies; they address the layman at public gatherings and over the radio; teams of medical specialists travel to various centres of the province to carry the latest knowledge and techniques to practitioners of the district. Every year the Faculty presents a Refresher Course at the University to allow practitioners to keep abreast of the most recent information in their fields. The Refresher Course, held May 11 to 15, 1952, was well attended, with a good proportion of the registrations from physicians in the smaller centres.

Nearly all members of the full-time staff, and some members of the part-time staff, find time to carry on research investigations in a great variety of fields. Financial support for research has been provided by the Medical Research Fund of the University, the National Research Council of Canada, the National Cancer Institute of Canada, and the Alberta Cancer Society. Two beds for clinical research at the University of Alberta Hospital are supported by the Alberta Cancer Society and the Kinsmen Club. The McEachern Laboratory for Cancer Research was formally opened with appropriate ceremonies on November 1, 1952. Two teams of workers were already established in it at that time, investigating surgical problems in cancer. The Laboratory has permanent equipment of a type not found in hospitals or in the departmental laboratories. An isotope room is now being fitted up to facilitate use of this modern aid to cancer research and a member of the staff is receiving advanced training in the use of isotopes.

During the year the Faculty has had a number of distinguished visitors. On March 9, 1953, the Fourth Tisdall Lecture was presented by Dr. Honor B. Fell, F.R.S., of Cambridge, England. Professor W. J. Hamilton of London, England, lectured as the guest of the Faculty on April 29, 1953. It is felt that great benefits accrue to both staff and students from the visits of such outstanding medical scientists.

Report of Professor H. E. Penhale, Director of the School of Nursing

Three hundred and twenty-four students registered in the various programs during the year. This figure represents the number registering in eight programs—25 in the new four-year program leading to the degree Bachelor of Science in Nursing, 80 in the five-year degree program, two in the two-year degree program for graduate nurses, 190 in the three-year undergraduate diploma course, six affiliating students from the Provincial Mental Hospital,

five in the four-month course leading to the Certificate in Advanced Practical Obstetrics, seven in the one-year program leading to the Diploma in Public Health Nursing and nine in the one-year program leading to the Diploma in Teaching-Supervision in Schools of Nursing. A marked interest has been shown in the two new degree programs, offered for the first time in September, 1952. A larger registration is anticipated during the coming year.

Inherent in the philosophy upon which the programs in the School of Nursing are based is the belief that the nurse's preparation must reflect the needs of the community in which she is to serve. Since health and sickness needs of people vary, the nursing curricula must be evaluated periodically to keep pace with the varying needs of society.

During the past year considerable thought has gone into the re-evaluation of the curricula, resulting in course content and methods of presentation being revised. During the preclinical term much of the subject matter has been integrated in such a way as to reduce the total number of courses offered and at the same time present the theory in a more usable form. One course—First Aid—was added. The block system is being continued in the junior term. Courses formerly included in the senior term are being offered earlier in the course so that students are provided the opportunity to apply the knowledge gained while administering nursing care. Experience in the Diet Kitchen has been made more meaningful to the students through arranging a closer contact between patients who are on therapeutic diets and the students assigned to this department.

The plan for rotation of students throughout the various clinical departments of the hospital has been more closely correlated with the classroom program. This is made possible through a reorganization of the administrative setup. An educational supervisor was appointed who is responsible for the rotation of students and for the curriculum pattern. The practice field for first-year students was broadened to include orthopedics, urology and dermatology. This will provide time in the third year for students to be reassigned to the medical and surgical departments, where they will be given more senior responsibilities. It is in keeping with the trend toward an internship during the final year of the nursing course. Rotation of students into such services as operating room, paediatrics and obstetrics has been placed on a more systematic basis. It is now possible to correlate nursing care summary requirements for each of the clinical services with ward postings. The clinical instruction program is being revised at the present time.

On September 7, 1952, an affiliation was started at the Aberhart Memorial Sanatorium. Each student spends four weeks at the Sanatorium, where she receives instruction and clinical experience in the various aspects of Tuberculosis Nursing. The affiliation in Paediatric Nursing at the Royal Alexandra Hospital was discontinued due to the increase in paediatric experience available at the University of Alberta Hospital. The Orthopedic affiliation program for students from the Royal Alexandra Hospital was discontinued.

The staff has assisted graduate nurses who are employed in public health, private duty, industry and in institutions. Short courses were offered in Lethbridge, Calgary and Edmonton. Approximately 325 nurses availed themselves of the opportunity to attend one or more of the seven courses offered.

A continuous effort is being made to reduce wastage through improved student selection and a more adequate counselling and guidance program. The

Student Advisory Services have been called upon frequently to assist the teaching staff in the counselling program.

Report of Dr. M. J. Huston, Director of the School of Pharmacy

Academic

This term all students in the graduating class were subjected to comprehensive oral examinations. This was found to be a time-consuming but worthwhile undertaking. A short course in public speaking was introduced this year and was enthusiastically received by the students.

Extension

The School again conducted a refresher course in conjunction with the annual convention of the Alberta Pharmaceutical Association.

Four extension bulletins on recent advances in Pharmacy were prepared and sent to all pharmacists in the province.

Dr. Huston took part in the refresher course of the Saskatchewan Pharmaceutical Association at Waskesiu.

The second annual Internes' Night at the School was well attended. Internes from Edmonton and district were taken on a tour of the department and given talks by staff members and officials of student organizations. A similar program was undertaken for high school students. The School of Pharmacy also took an active part in the Guest Weekend program.

In order to help students and internes to select the phase of Pharmacy most suited to them, a Pharmaceutical Symposium was held in which nine members of the profession presented papers on the requirements for success in each field and its advantages and disadvantages. Over 150 attended and the reaction to the program was highly favorable.

Mr. Riedel served during the year as an abstractor for the Physiology, Biochemistry and Pharmacology section of *Excerpta Medica*. He also acted as Chief Training Officer for the University Reserve Squadron. Mr. Anderson was active in the Y's Men's Club and Dr. Huston in Kiwanis and the Edmonton Symphony.

Staff members presented papers to professional societies, service clubs and similar groups as follows: Mr. Riedel, 8; Mr. Anderson, 2; and Dr. Huston, 26.

Research

Mr. Riedel continued his investigations on the effect of conditions of stress on phosphorus metabolism in rats as measured with radioactive P.

Dr. Huston collaborated with Dr. R. B. Miller of the Department of Zoology on the cultivation of tapeworms.

Other problems being investigated included: the estimation of the blood volume of rats; the action of certain drugs on the neuromuscular mechanism; photomicrography of emulsions; and an analysis of a drug store's operations.

Report of Dr. A. L. Doucette, Director of the Calgary Branch

Matters in General

Overall Enrolment—There are two Faculty branches in Calgary, a general education faculty offering courses in the first year of Arts and Science, and a professional Faculty of Education. The latter offers the one-year Temporary License program, the first two years of the Bachelor of Education degree program, and the first three years of the Bachelor of Education in Industrial Arts.

The total enrolment at the Calgary Branch rose to 315 during 1952-53 session. The figure includes 55 Arts and Science students, seven of whom are partial students; it also includes 45 partial students in Education, mainly teachers from Calgary city schools who take advantage of the late afternoon classes offered to regular students and of the single evening classes for credit in English 2.

Distribution of Students in Both Faculties—The geographic distribution of the 270 full-time students in both faculties is as follows:

From Saskatchewan	7
From British Columbia	1
From Calgary	116
Up to 50 miles from Calgary	21
From 50 to 100 miles from Calgary	46
From 100 to 150 miles from Calgary	51
From a distance of over 150 miles from Calgary	28
	—
	270

Fifty-one of the 55 Arts and Science students come from Calgary. Sixty-six of the full-time 215 students in Education also reside in the city of Calgary. The 21 students who come from a distance up to 50 miles from Calgary, as listed in the foregoing tabulation, exclude those students in the city of Calgary proper.

Staff—The total staff at the Calgary Branch consisted of eleven full-time members in the Faculty of Education, eight full-time members in the Faculty of Arts and Science, one sessional lecturer in Education, six instructors in shop work from the Institute of Technology and Arts, a librarian, a librarian assistant, and four non-academic staff members—a total personnel of thirty-two.

The academic staff have been generous in the following community contributions: radio work, service club lecturing, convention speaking and demonstrating, Education Week activities, and extension lecturing at evening classes.

Advisory Services—Dr. J. G. Woodsworth, Supervisor of Advisory Services for the Branch, maintains contact with Dr. A. J. Cook, Director of Advisory Services at the University in Edmonton. Our Advisory Services office meets the needs of both Arts and Science and also of Education students.

Placement Service—Dr. T. G. Finn, Supervisor of Practice Teaching, and Dr. J. G. Woodsworth, Supervisor of Advisory Services, maintain close contact with the Calgary National Employment Office and with Divisional Superintendents in order to place students in summer work in teaching positions.

Medical Services—Miss R. Chittick, R.N., is Supervisor of Medical Services and cares for emergency cases at the Institute of Technology and Art in addition to the regular service to students of the Calgary Branch of the University.

Provost Duties—Mr. E. W. Buxton, as Assistant Provost to the University, supervises discipline at the Calgary Branch and also acts as Adviser to the Students' Union but does not sit in at their meetings.

Committee on Student Affairs—The Director of the Calgary Branch acts as Chairman of this committee, comprising some 20 members and including Mrs. D. A. Hansen, Calgary resident member of the Senate. The Assistant Provost is Secretary of the Committee. The President of the Students' Union presents the committee report to the Edmonton Committee Meeting on Student Affairs.

Students' Union—The Students' Union is an active organization and is represented by both faculties of the Calgary Branch. The Council takes its work seriously, and in general has had a very satisfactory year under the direction of President David Whittle.

This year a portion of an army H-hut was procured as a Students' Union building, which was formally opened by the Director at the time of the Open House in March. The President and Chancellor of the University were both present at the opening. The new quarters were put in shape by the students, with the result that office space has now become available for the various student groups and clubs.

The Board of Governors gave approval for an increase in Students' Union fees from \$14.50 to \$20.50, effective September, 1953. The additional \$6.00 will be used for two years to furnish the new Students' Union premises, and after that date the increased fee will be set aside as a cumulative fund to be spent under the advice of the Board of Governors.

Cal-Var—This student newspaper now appears in printed form; its guest editorials and student contributions have drawn very favorable comment. The editor was Miss Donna Pfeifer.

Year Book—The year book of the Calgary Branch, dedicated to the late Dr. G. K. Sheane and containing a message from Dr. E. P. Scarlett, newly appointed Chancellor of the University, is of a very high quality this year.

Evening Classes—About 300 students took advantage of the following winter program of non-credit evening classes, consisting of ten evenings of one and a half hours each:

<i>Subject</i>	<i>Instructors</i>
Commercial Law	M. H. Patterson, B.A., LL.B., and D. C. Prowse, B.A.
Home Designing and Planning	W. G. Milne, B.Arch., MRAIC
Music Appreciation	H. B. Barnett, A.R.R.C.T., B.Mus., B.A.
Appreciation of Literature	Sheila Watson, B.A., M.A.
History of the Canadian West	T. G. Finn, B.A., M.A., Ed.D.
World Affairs	G. M. Self, B.A., M.A., Ph.D.
Psychology of Personality and Adjustment	J. G. Woodsworth, B.A., B.Ed., Ed.D.
Principles of Gardening	Alex Munro, F.R.H.S.

Evening Classes for Credit—An attempt was made last fall to institute evening credit classes counting toward a degree. The total response amounted to a mere 18 or 20 persons in five or six subject offerings. This was not sufficient to warrant the beginning of evening classes for credit in 1952-53. The University administration in Edmonton has suggested that next fall, in 1953, the experiment will be tried once again in Calgary, and it is hoped that there will be a sufficient response to warrant the introduction of degree credit courses in evening sessions.

Extension Department Refresher Course for Teachers—A refresher course for teachers, a 15-week course for two evenings per week and co-ordinated by Dr. Finn, was contributed to by the following lecturers: Dr. T. G. Finn, Dr. A. L. Doucette, Miss B. Newton, Mr. J. D. Aikenhead, Mr. H. B. Barnett, Miss R. Chittick, Mr. L. Goodwin, Mr. C. Hampson, Miss H. Stadelbauer and Dr. J. G. Woodsworth. Dr. H. T. Coutts of Edmonton Faculty of Education gave one lecture, as did Miss Christoferson of the Department of Education in Edmonton.

Open House—This year Open House was held on March 25th, at which time the President and the Chancellor were in attendance. Some 600 high school students, parents, and citizens toured the premises of the Calgary Branch and observed students in classes and laboratories and inspected various displays and exhibits.

Closing Exercises—For the second time, these exercises were held at Central United Church in Calgary. The ceremony is dignified and colorful. The visiting dignitaries constituting the platform party this year were as follows: President Andrew Stewart; Dr. E. P. Scarlett, Chancellor; Dr. W. Johns, Dean of Arts and Science; Dr. H. E. Smith, Dean of the Faculty of Education; Professor F. M. Salter, guest speaker, whose address was entitled *Fifteen Pages*; His Worship the Mayor of the City of Calgary; the Hon. A. A. Aalborg, Minister of Education; and lastly, Rev. John Garden, Principal of Mount Royal College.

Faculty of Arts and Science Items

Courses and Enrolment—Enrolment increased at the Calgary Branch last fall, from 40 in 1951-52 to 55 in 1952-53. The increased number of students in the Faculty of Education directly affected enrolment in Arts and Science classes. In particular, English 2 experienced an unusually large enrolment of about 160 students and five sections had to be given to Dr. Graham, Dr. Watson and Mr. Buxton, the latter from the Faculty of Education. In addition, a full-time marker was appointed in English 2.

Community and Extra-curricular Activities—Dr. V. E. Graham is rendering an excellent service as organist at Grace Presbyterian Church. He gave an outstanding organ recital on April 15, 1953, at which time a large number of the Calgary public were present. Dr. Watson helped with the Dramatic workshop, culminating in a final public performance; he was assisted by Miss B. Newton of the Faculty of Education.

Several staff members spoke to service clubs, the Professional Institute, and visits were made to city high schools in Calgary to talk about offerings at the Calgary Branch and about university education in general. Staff members directly connected with such activities included Dr. Allen, Dr. Chubb, Dr. Graham, Mr. Martin and Mr. Prince.

Last summer three staff members taught at the summer school in Edmonton, one taught in Oregon, and one visited Europe for study.

Arts and Science Club—This Faculty Club was organized for the first time this year. The club sponsored the showing on campus of the film *Henry V*. Fifty dollars of the proceeds will be used as a bursary for an Arts and Science student proceeding with studies in Edmonton next year. This commendable idea originated with the students themselves.

Faculty of Education Items

Enrolment—A study of enrolment trends in the Faculty of Education revealed the following:

A continuous decline in the number of the students in the One-Year Temporary License teacher-training program in the Faculty of Education. This decline exists despite the fact that students in this program are subsidized by the Provincial Government with bursary aid and fee remission. This year there were 94 students enrolled in this program. A few years ago in Calgary there were 175 students enrolled.

There is a marked increase in enrolment in the first year of the Bachelor of Education degree program, from 14 last year to 39 this year

There is a gratifying increase in the enrolment of students returning from teaching to complete their second year. There were 41 such students this year as compared to 14 in 1951-52.

The total increase in enrolment in the second year of the Bachelor of Education program in Calgary rose from 27 last year to 55 this year.

The total increase in enrolment of 53 students in the Faculty of Education in Calgary is the highest increase of any faculty or school in the whole University.

Courses—There is still a need expressed by students for the offering in Calgary of Education 253, Dramatics, as offered in Edmonton in the second year of the Bachelor of Education degree course.

Certain staff members expressed the need for courses in geography, children's literature and elementary science for students enrolled in the elementary route of the Bachelor of Education program.

Students in the Temporary License program and in the Bachelor of Education program in Industrial Arts find the class loads heavy. In the latter program, because most shop courses run six hours per week, the hours of class time in the first year total from 33 to 36 hours per week and in the third year from 30 to 33 hours per week.

Special Activities During the Year—Mr. J. D. Aikenhead acted as staff consultants for the Education Undergraduates' Society and also as staff adviser for the Western Canada Student Teachers' Conference, held in Calgary, January 26 to 29 inclusive.

Miss R. Chittick was co-ordinator and chief instructor for a short course for instructors in schools of nursing from September 15 to October 11 inclusive. She served as assistant to Miss Irene Murchison, who co-ordinated a Department of Extension Workshop for Public Health Nurses from March 19-21 inclusive. She also served as co-ordinator of a Workshop on the School Health Program and Public Health Nurses during the week of April 7. Miss Chittick also acted as staff consultant on the Calgary Evergreen and Gold Year Book.

Dr. Finn continued his work as Chairman of the Social Studies Revision Committee for the Junior High School Curriculum Committee of the Department of Education and co-ordinated a new non-credit evening refresher course of 30 lectures, covering one and a half hours each and designed for experienced teachers.

Mr. Goodwin is President of the Alberta Amateur Basketball Association Referees and in addition conducted a three-day instructional course for referees at Red Deer. Mr. Goodwin has also acted on the Calgary School Board for the last two years.

Dr. Woodsworth has been appointed a member of the Calgary Welfare Bureau and has been very active in lecture work for Home and School Association meetings. He offered an extension course in the psychology of personality and adjustment for ten weeks in both Calgary and Red Deer.

Mr. Buxton gave an extension evening course for credit in English 2.

Dr. A. L. Doucette, the Director, continued his work as Chairman of the Curriculum Sub-Committee for Junior High School Science in connection with the Curriculum Branch of the Department of Education. He gave 14 major

addresses on education in the southern part of the province and also in Fernie, B.C. He is also secretary of a newly organized Western Canada Regional Conference of Teacher Educators and secretary of a Dominion-wide Planning Committee of the C.E.A., Teacher Educator section.

Report of Dr. John W. Gilles, Director of the Summer Session

Registration and Attendance

The advance registration for the University of Alberta Summer Session reached a total of 2,062, a decrease of five from 1951. Cancellations were received from 144 students, while 250 other students who registered failed to attend. As a result, 1,668 students appeared for classes. The corresponding figure for 1951 was 1,700. A summary of the attendance figures follows:

Summary of Attendance

	Veterans			Civilians			Faculty
	Men	Women	Total	Men	Women	Total	Total
Education	86	7	93	453	923	1376	1469
Agriculture				1	1	2	2
Arts and Science	24	2	26	36	30	66	92
Commerce				2		2	2
Engineering				1		1	1
Household Economics					2	2	2
Nursing					2	2	2
Pharmacy	2		2	6		6	8
Graduate Studies	21		21	31	12	43	64
Auditors				3	7	10	10
Specials	1		1	9	6	15	16
	134	9	143	542	983	1525	1688

Of the students who actually attended the Summer Session, 88.1 per cent were reported as registered in the Faculty of Education as against 92.3 per cent for 1951. This drop of four percentage points seems to be accounted for by reason of the fact that this year graduate students were listed separately and were not included in faculty totals as was done in 1951. The Registrar's report shows that approximately 4 per cent of this year's Summer Session students were registered for graduate studies. Presumably most of these would be students formerly included in the Faculty of Education total.

Instructors

The Summer Session teaching staff was composed of a total of 89 instructors, 13 more than in 1951. The following summary indicates the sources from which these instructors were drawn.

Classification of Instructors

Full-time members of University staff	47
Instructors from Affiliated Institutions	3
Visiting Instructors from Alberta:	
Department of Education	3
School Systems	12
Others	6
	21
Visiting Instructors from Other Provinces	11
Visiting Instructors from U.S.A.	7
	39
	89

Visiting instructors from outside the province included the following: Miss Jean S. Boggs, Mount Holyoke College, South Hedley, Mass.; Mrs. Elizabeth H. Feniak, University of Manitoba; Mrs. Marietta E. Gordon, Bremerton Public Schools; Mr. Samuel Harrison, Bremerton Public Schools; Miss Frances Holland, Plattsburg Public Schools, N.Y.; Miss Isabel Laird, Queen's University; Dr. John W. McIntosh, Toronto Public Schools; Dr. M. H. M. MacKinnon, University of Western Ontario; Dr. William A. Plenderleith, Inspector of Schools, Victoria, B.C.; Mr. Pierre R. Robert, University of British Columbia; Miss Carlene Ross, Fresno State College, Calif.; Mr. R. E. K. Rourke, Headmaster, Pickering College, Newmarket, Ont.; Miss Helen M. Routledge, London Public Schools, Ont.; Miss Mary Cleta Scholtes, Minneapolis Vocational School; Dr. Robert L. Stanley, Seattle, Wash., Sessional Lecturer, University of British Columbia; Miss Audrey Taylor, Montreal Museum of Arts; Dr. Clarence R. Tracy, University of Saskatchewan; and Mr. Harold V. Weekes, University College, Toronto.

It will be noticed that only three members from the Department of Education were employed as instructors in the Summer Session. This is rather regrettable, for it would be desirable to maintain a rather close liaison between the Department of Education and the Faculty of Education in which so large a proportion of Summer Session students are registered. However, present regulations covering the conditions under which members of the Provincial Civil Service may be engaged by the Summer Session make it financially inadvisable to employ any more than a bare minimum of instructors from the Department of Education staff.

No adverse reports were received about the work of any of the visiting instructors. On the other hand, excellent reports were received about several of them.

Special Events Program

That part of the Special Events Program which was directly sponsored by the Summer Session consisted this year entirely of musical programs. Two piano recitals were given, one by Miss Lillian Kester and the other by the outstanding concert pianist, Dr. Bela Boszormenyi-Nagy. Mr. Victor E. Graham of the University staff, Calgary, provided a very fine organ recital, while Mrs. Dorothie Langmo and Miss Mary Hughes, both of Calgary also, were heard in a viola and piano recital. The choral recital presented by the combined music classes of the Summer Session under the direction of Mr. A. B. Crighton, Mrs. G. C. Higgin and Mr. Raphael Lopatka, was well attended and enthusiastically received. Miss Donna Gail Richards, soprano, was the featured soloist on this program.

During the course of the Summer Session students had the opportunity of attending the Studio Theatre production, *The Italian Straw Hat*. Students in Education 136 took an active part in this production.

The management of the Edmonton Pops Orchestra Concert Series made it possible for Summer Session students to attend three concerts at reduced prices. Student attendance at each of these concerts was in the neighborhood of 200.

A special Sunday service was held in Convocation Hall on July 27 with Dr. L. E. Toombs as minister in charge. The very large attendance fully justified continuance of this feature of the Special Events Program.

Report of Dr. Osman J. Walker, Director of the School of Graduate Studies

Organization

The School of Graduate Studies has been reorganized under a Director and with an increase in members much more representative of the departments conducting graduate work than was true in the past. During the year there has been extensive revision of the regulations governing candidates for the Master's degrees and the Ph.D. degree.

Registration

During the regular session, candidates were proceeding to advanced degrees in 22 departments or divisions. The breakdown is as follows:

Animal Science	2
Bacteriology	2
Biochemistry	8
Chemical Engineering	4
Chemistry	7
Civil Engineering	6
Dairying	1
Elementary Education, Educational Psychology, Secondary Education	41
Electrical Engineering	3
English	8
Geology	5
History	10
Mathematics	1
Medicine	3
Modern Language	7
Physics	5
Physiology	2
Plant Science	14
Political Economy	8
Psychology	8
Soils	6
Special Grads	51
Zoology	4
Total	<hr/> 206

Recommendations for Degrees

During the academic year the number of students recommended for degrees is as follows:

M.A.	7
M.Ed.	14
M.Sc.	36
	<hr/> 57

Scholarships and Fellowships

Despite the increase in value of some of the research scholarships, there has been no increase in the number of applicants for them. As a result it is unfortunate that some of these have not been awarded.

Report of the Librarian, Miss Marjorie Sherlock

Library activity in the three libraries continued on an even higher level than last year, with a total circulation of 160,348 and a total recorded attendance of 308,481 readers. Since most of the reading rooms are open-shelf reading rooms, the actual use made of the books is many times greater than that shown by the recorded circulation statistics. These figures leave no doubt that the

students are now using the library thoroughly, as has been indicated all year by the well-filled reading rooms and the increased use of the stacks and browsing areas.

This increased use is most apparent in the Rutherford Library, where the circulation was 28 per cent higher and the attendance 36 per cent higher than last year. The Library at the Calgary Branch reports an increase of 59 per cent over last year's attendance.

The use made of the Library during the Summer Session was the heaviest on record. To relieve the strain on the Education Library, a number of the largest Education classes were scheduled at the north end of the campus and the books circulated from the Rutherford Library. The reserve room and the browsing area were kept open during the evenings and very heavy use was made of both. There can be no doubt that the Summer School students also have discovered and are making full use of the improved service we are now able to offer.

The reorganization of the various departments and reading rooms, begun during our first year in the new quarters, has continued. Simplification of routines and standardization of forms and the streamlining of library processes have been prepared to increase efficiency and to give continuity to the administration of the various departments. The purchasing and distribution of all supplies has been centralized under the order department.

A complete inventory of the main library, the first in twenty years, was taken during the summer of 1952, and certain outworn and outdated material was discarded preparatory to the reclassification of the collection according to the Library of Congress scheme.

This reclassification program, estimated to require four years for completion, was authorized by the Board of Governors in 1952. Now, at the end of one year's work, the Chief Cataloguer reports the project running to schedule with approximately one-quarter of the work completed. The temporary arrangement of books under two classifications necessitated by this process is making increased work for the Circulation Department and difficulties for stack users, but the need of the change from the old Cutter system was so apparent and pressing that everyone is bearing the inconvenience with good will in anticipation of better things to come.

This year for the first time a system of fines on reserve books was introduced in accordance with library practice in most Canadian and American universities. These books constitute the prescribed reading for the various courses, and the use made of them by the students is very heavy. This fine system has worked well and has been well received by the students, who recognize it as a protection for themselves against unscrupulous borrowers. It was endorsed by the Students' Council.

Quarters

The facilities of the Rutherford Library continue to give satisfaction and comfort to readers and staff. The browsing area has been used to capacity all year, with a 90 per cent increase in its use. It is apparent that the students appreciate the opportunity to see and handle good books apart from their studies and are acquiring the habit of reading for its own sake.

During the year the exhibits in the various cases in the main rotunda were changed monthly under the direction of the Order Librarian and were a source

of interest and pleasure to regular library users and to visitors. Books, pictures, glass and pottery ornaments, Canadian items, curios and artifacts from Egypt, the Congo, the Arctic, the Ukraine, were included in the displays.

The music room continued to give pleasure to a regular and increasing group of students and faculty. Daily noon-hour programs and alternate afternoon and evening programs included recordings of music, poetry and plays arranged by three music students under the general supervision of a member of the library staff. The projection room, equipped with motion picture and slide projectors, was used on an average of 50 hours monthly for illustrated lectures. The seminars were used regularly for lectures 90 hours weekly, as well as for moot courts, conference groups, evening classes, short courses and campus study groups.

Visitors to the Library

During the year the stream of visitors to the Rutherford Library has continued unabated—visitors from other universities, interested citizens, parents of students, school children in organized groups, tourists. On the Saturday and Sunday of Varsity Guest Weekend, 2,600 visitors toured the building, and smaller groups are shown over the building constantly. Our most distinguished visitor was His Excellency the Right Honorable Vincent Massey, Governor General of Canada, accompanied by Mr. and Mrs. Lionel Massey and his party.

Departments

Order Department—During the past year the work of this department was maintained at its usual level, with 5,396 volumes ordered and an additional 560 volumes received and acknowledged as gifts. The initial \$1,000 of the Gonsett Ukrainian Library Trust Fund was spent for books on Ukrainian literature and history. A further sum of \$500 is available for this collection for the coming year.

The department continued to sort and process uncatalogued material which has been in dead storage for some 20 years or more because of lack of shelf space. This is gradually being checked, bound and prepared for the shelves as rapidly as the pressure of current work permits.

Cataloguing Department—Overshadowing all other activities of the past year in this department has been the reclassification project. On April 8, 1952, the Cutter classification—long inadequate and outdated—was officially discontinued, and new books in all subjects are now being classified according to the Library of Congress scheme. During the year all the bound files of journals in the library have been reclassified and a start has been made on the books in the medical reading room.

With the addition to the regular staff of two full-time staff members, and students equivalent to 2¾ full-time assistants, the work has progressed in a highly satisfactory manner. Great credit is due to the Chief Cataloguer, Mr. Peel, and his assistant, Miss Carol Hicks, for their extremely efficient organization and direction of the undertaking. To date 26,123 volumes have been reclassified.

This year's work of the department included 10,360 volumes accessioned, 9,352 volumes catalogued (including 1,014 bound journals); 28,600 volumes reclassified; 38,393 volumes lettered; 1,683 withdrawn; and 52,942 cards typed. This is a most creditable record.

Reference Department, Periodicals and Binding—This department provides general reference service to staff and students, including inter-library loan service for the faculty. It is responsible for the microfilm and microcard equipment, maps, pamphlets and documents, and for the rare book collection, including the Rutherford Canadiana collection. It is also responsible for the ordering and circulation of current periodicals and the binding of books and journals for the entire library.

During the session 1952-53 the use of the main reference reading room has almost doubled, with an attendance of 64,899 as compared with 35,637 last year.

The use of the periodical reading room has more than doubled, with an increase of 121 per cent in attendance and of 169 per cent in circulation. This indicates that the students have now discovered and are making good use of the valuable reference material in current journals which in the old library were not easily accessible to them.

Until the move to the new building the Library was not able to acquire or maintain a document collection because of lack of space. Since May, 1951, we have been setting up such a collection, and during the past year the building up of back files as well as the acquisition of current documents has gone steadily forward. Our collection will consist largely of Canadian documents, with selected series of British and American. A complete set of the Official Records of the United Nations Organization was purchased during the year and is now being indexed and prepared for use.

A collection of University Archives has also been organized under the following heads: Theses; Staff Publications; Calendars; Examination Papers; Gateway Files; New Trail Files; Alberta Folklore Collection.

During the year 1,228 current journal subscriptions were placed (an increase of 43 over last year); 2,326 journals and books were bound or rebound as compared with 1,874 in 1951-52. The inter-library loan service was slightly increased over that of last year with 156 items loaned to other libraries, 136 books borrowed and 83 microfilms or photostats secured for members of the teaching staff. The number of theses by our own graduate students added to our collection was 70.

General Circulation Department—This department is in charge of the main delivery desk on the second floor and of the browsing area and book collections there, as well as the reserve reading room and the stacks.

This department has borne the brunt of the inconvenience caused by the reclassification of the book collection and the temporary rearrangement of the books under two systems. It takes the staff longer to locate books, and much time is spent in helping stack users to locate the books they need. But it is a burden willingly borne since it is realized that it is for the ultimate advantage of both staff and borrowers.

Circulation during the year from the reserve room was 38,197; from the stacks and browsing area, 26,629, a total of 64,726 as compared with 51,065 during 1951-52, an increase of 25 per cent.

Attendance for the year was: reserve room, 60,063; browsing area, 13,224; stack users numbered 5,389; a total attendance of 78,676 as compared with 49,790, showing an increase of 57 per cent.

Branch Libraries

Medical Reading Room—This reading room serves the Faculties of Medicine and Dentistry and the Schools of Nursing and Pharmacy. Most of the books and current journals are now fully accessible to readers on open shelves, so we have no statistics of their use in the library.

There has been a marked increase—about 40 per cent—in the use of current and bound journals by both undergraduate and graduate students, probably attributable to their growing familiarity with the various indexing and abstracting publications to which we now subscribe.

Three thousand four hundred and sixty-one items were loaned to city and rural doctors. Current journal subscriptions now number 389 (Medicine 306, Dentistry 52, Nursing 14, Pharmacy 17). Attendance was 16,503, an increase of 29 per cent over the previous year.

Law Reading Room—Attendance in this reading room for the past year reflected the 15 per cent decrease in registration in the Faculty of Law, being 22,769 as compared with the previous year's total of 29,425.

Since the books in the reading room and in the adjoining two-tier law stack room were freely accessible to students, no statistics of their use are available except for the comparatively small group of textbooks and journals which circulate for overnight use. Circulation of these was 2,147, a decrease of 12 per cent from last year.

During the summer of 1952 a complete inventory of the law collection was made for the first time in many years, revealing a bookstock of 11,866 volumes as of March 31, 1953. During the year 1,004 volumes were added to the collection, including the Law Reports of British Columbia, New Brunswick and Nova Scotia, the Commonwealth Law Reports (1903 to date) and the United States Reports (1790 to date), as well as the latest revised statutes of the various Canadian provinces. Current journal subscriptions now number 27, an increase of eight since last year.

Applied Science Reading Room—This reading room serves the Faculties of Agriculture and Engineering and the Department of Chemistry. Circulation statistics give no indication of the use made of the books in the library, since almost all the books and journals are on open shelves. Circulation for use outside the library was 7,711, an increase of 18 per cent over last year's figure. Use of this reading room continues to grow, with an attendance of 29,815, an increase of 33 per cent.

The year's work for the staff included the first complete inventory ever taken of this book collection and the sorting, processing and shelving of much valuable pamphlet material formerly in dead storage because of lack of shelf space.

This year a complete set of the Engineering Index was purchased. This, with the other indexes already in the reading room, forms an extremely valuable reference collection in increasing use by students, staff and research men from outside the University.

Education Library—This branch library is not housed in the Rutherford Library but is situated in the Education Building. Again this year, lack of space for books and readers made it difficult to provide good library service, but plans are already under way to relieve the situation by remodelling the upstairs study room and making it an integral part of the library.

Registration in the Faculty of Education was down considerably in 1952-53, especially in the Temporary License Program. This drop was reflected in the circulation figure of 41,025 as contrasted with 47,109 in 1951-52. It is not possible to keep attendance records as the study room is not supervised.

Calgary Branch—This library serves the students and faculty in Education and Arts and Science. During the year 1,600 volumes were added to the collection, which at March 31, 1953, numbered 15,331 volumes. A gift from Mrs. H. H. Sharples of 650 recordings has enriched the music collection. These are available for student use in the library at three listening tables equipped with record players and earphones.

During the year the Branch Librarian, with one full-time clerical assistant and three student assistants, circulated 14,434 books and journals for overnight use. As this is an open-shelf library in which readers have direct access to the books, this figure gives no indication of the use made of the books in the reading room.

Attendance for this year was 44,725, an increase of 59 per cent over the figure of 28,075 for 1951-52. Current journal subscriptions now number 74.

Stock of Books

During the year 10,360 volumes were added to the collection and 1,683 worn or outdated volumes withdrawn. Recataloguing of the Edmonton Library and the Calgary Branch, in process for the past five years, has now been completed and for the first time it is possible to give an accurate figure for the book collection without having to estimate for unrecorded material. As of March 31, 1953, the total number of accessioned volumes in the Library was 142,856.

Report of the Provost, Professor H. T. Sparby

Students at the University of Alberta have traditionally enjoyed a large measure of self-government in the running of their affairs, and the efficiency with which the officers of the Students' Union discharge this responsibility continues to be a source of satisfaction to the University. The student body usually elects to the presidency of the Students' Union a young man of good character and sound administrative ability, and this happy tendency was well maintained in 1952-53 with the election of Mr. Ed Stack. Mr. Stack, with the support of a strong council, gave the student body able leadership during his term of office.

Regarding the work of Students' Council, there are one or two matters of special interest which might be mentioned here. A minor but significant change was made recently in the pattern of representatives elected to Council. For some years all of the seven faculties and the School of Nursing have elected representatives, but there have been none from the other schools. This situation was remedied this year when a constitutional amendment was passed providing for elected representatives from the Schools of Pharmacy, Household Economics and Commerce. At the same time the representation from the University Athletic Board and the Cultural Association was reduced from three to two in each case, thus maintaining approximately the same total number of Council members.

Another matter which has occupied the attention of Council recently is the need for a complete revision and consolidation of the constitution of the Students' Union. It is now several years since this was last done, and as Mr. Stack commented in his annual report, the constitution in its present form is

rapidly becoming "more of a handicap than an aid to efficient administration of Students' Union business". It is the expressed purpose of the incoming Council to give this matter further attention.

Student effort in the field of organized public relations has reached a commendable level on our campus. The three major activities during the past year were the fifth annual Parliamentary Banquet, the fourth annual Civic Banquet and the second annual Varsity Guest Weekend. Under the leadership of the students' public relations officer, Mr. Doug Burns, each event was well organized and ably managed. Attendance at Varsity Guest Weekend was estimated by those in charge to be approximately 5,000, almost double that of the previous year.

It has long been the policy of the University to place students whose scholastic standing falls below a certain minimum on "probation". That is to say, such students are not permitted to participate in certain extra-curricular activities and are advised to devote more time and effort to their University courses. About a year ago a suggestion was received from Students' Council that probation policy and procedure were in need of revision. The suggestion was well received by the University administration and led to the setting up of a joint student-staff committee to study the matter. In due course of time, recommendations from this committee were received, approved and implemented. Among the changes made, the following were the most significant: (1) Only first-year students are now subject to being placed on probation. For upper-classmen, other methods were devised to serve the same purpose. (2) Administration of the regulations has been streamlined to provide earlier notification to students placed on probation. (3) Conditions under which students are removed from probation have been clarified. Both students and staff have expressed satisfaction with these changes. This matter has been outlined here in some detail, partly for the purpose of illustrating the ready liaison which exists on our campus between the students' government and the University administration.

There has been little change during the past few years in the number and variety of extra-curricular activities, although notable progress has been made in scheduling events in a more systematic fashion. Several years ago Students' Council created a scheduling committee with over-all authority to set dates for major campus events. Such a committee is necessary if serious conflicts are to be avoided. The President of the Students' Union is chairman of the committee, and the University administration is represented by the Dean of Women and the Provost. It is becoming the policy of this committee to schedule most affairs for the same dates each year, thus creating a stable annual pattern of events which is proving very acceptable to all concerned.

This has been an unusually successful year in athletics, with both men's and women's teams winning numerous awards. Undoubtedly the highlight of the season was the senior men's basketball series in which the Golden Bears came so close to winning the Canadian championship. After defeating the Winnipeg Varsity Grads and the Vancouver Cloverleafs in two close contests, the Bears lost the final series to the Toronto Tri-Bells three games to two.

It is a pleasure to report once more the absence of any serious disciplinary problems on the campus. This is the second consecutive year in which the Disciplinary Committee of the Students' Union has not been called upon to adjudicate a single case of student misbehavior. Furthermore, life in the Uni-

versity residences, which is usually a good indicator of student behavior on the campus as a whole, has also for the second consecutive year suffered no serious disruption. Much of the credit for this state of affairs is due, of course, to the various student committees who manage the details of student life in the three residences and the Students' Union Building.

Report of the Dean of Women, Miss Maimie S. Simpson

Interviews

Pre-Session—During the Easter vacation and shortly after the close of school in June, girls came to discuss plans for University entrance. Some requested an opportunity to take an interest inventory administered by Student Advisory Services or to get further detailed information from the Director; others wished appointments with the Deans of the Faculties or with the heads of some of the departments. In each case appointments were made.

At Registration—*Those who require some financial assistance.*

As University was opening, a number of girls were placed in suitable homes close to the campus where they worked for board and room.

Some secured an hour or two each day as student assistants in the library.

A register was compiled of the names of girls in Pembina Hall who wished to baby-sit. This type of work is the means of a considerable number of girls making most of their spending money, at the same time helping professors and a few other people in the neighborhood.

Extra-curricular Activities

As in previous years, the Dean of Women attended a considerable number of dances, both formal and informal, upon invitation from the students.

Social Hour—All first-year women, in groups of 20, were invited to meet the Dean of Women at the coffee hour in her apartment in Pembina Hall. These informal gatherings make the girls feel quite free to return for any matter at all upon which they may wish some advice.

Student executives of the various campus clubs, including the University of Alberta Hospital Nurses' Macleod Club, when making plans for special functions, were entertained.

Women students in Medicine and in Dentistry and those graduating in honors in the Faculty of Arts and Science were entertained at tea.

The Wauneitas—At all times, close relationship was maintained with the Wauneita Society, since it includes all women students and since the members are called upon so often to act as hostesses in the Students' Union Building.

This year, under the very capable chairmanship of Miss Doris Bainbridge, the society has done more than ever before for the student body.

Each monthly meeting of Panhellenic was attended at the request of the fraternity women.

The University Mixed Chorus was accompanied on its trip to Calgary, to Fort Saskatchewan, and will be accompanied on its trip to eastern Alberta starting May 4.

Lectures

A series of three lectures by Dr. Ross Vant was again arranged for first-year women. These lectures were attended by 250 to 350 freshettes and were very much appreciated.

Public Relations

Twenty-four talks were given during the year in Edmonton, one in Vermilion and one at Olds. These were to church clubs, Y.W.C.A., high school groups, University Women's Club, nurses of the various city hospitals, three campus clubs, two alumnae groups and two groups of the P.E.O.

In all student matters the thoughtful consideration and ever-willing support of Mr. H. T. Sparby, Provost, made the University year a most pleasant one for all of us. We are deeply grateful to him.

Report of the Director of Student Advisory Services, Dr. A. J. Cook

The past year has been a satisfactory one, with a sense of the various activities of the department being carried along without fuss or strain.

School visits were carried out in the spring of 1952 and during the late fall and early spring of this year there were a number of career nights and afternoons. With the visits to schools this spring, we shall have completed school visitation throughout the entire province, with only very small schools omitted.

A series of four radio broadcasts on the winter program, *Your University*, was arranged for the month of March, giving information of special interest to the high school student completing matriculation. These broadcasts, originally over station CKUA, are being rebroadcast to schools in the Peace River area over station CFGP in early May.

The bulletin, *Information for Prospective University Students*, has been widely distributed, 4,500 copies having been used this year.

This department has sought from its inception to emphasize post-school but pre-admission counselling. Last summer showed progress made in this important task. The device of a combined Application for Admission - General Information form, used jointly by the Registrar's office and our own, worked very well. Many more students applied earlier for admission than in the previous year, giving us more time to check the information form for possible needed counselling. The pressure on the office was heavy in May-June, partly because to be very useful. Counsellors are being strongly urged to complete the cards before the end of the school year as a means of helping us with pre-admission counselling. The pressure on the office was heavy in May-June, partly because of housing enquiries for summer school. The pressure during the remainder of the summer is also heavy because of the pre-admission counselling needs, the recounselling of undergraduates with unsatisfactory records, and the fall housing enquiries. These are normal summer activities, all important and all getting better defined through experience.

May I stress the urgent need for more residence accommodation for the single and the married student? There were over 200 married students in attendance last year. Not only is the married student likely to be a constant feature of campus life, but every student ought to have at least one year of resident living on the campus. Our present scale of accommodation is long out-of-date.

The work of the session began with the usual basic tests in freshman week. The same tests will be given for the third time next September, with possible changes presently under study by the Committee on Student Advisory Services.

The School of Nursing has made systematic use of the department during the past session, with Miss Wilson giving a series of six lectures with tests to the incoming students in the diploma and degree courses.

There is also increasing use of the services by the various faculties. More students are being sent for referral for various reasons. Individual testing is commoner and there is an even closer linkup with the psychiatric services, with exchange of information and test data.

The action of the Deans' Council in clarifying probation procedures as they concern new students at the end of the first term enabled the department to reach out more quickly to students in academic difficulty. It is our conviction that more can be done to mitigate the shock of transition from high school and home environment to that of the University, this without impairing our standards. The "study tutorial" was introduced last January as a means of aiding students who had been put on probation because of weak first-term records.

The students who attended these tutorials were of the opinion that the tutorials should be held immediately following the November tests. The tutorial experiment was necessary since it was impossible to interview individually and in time to be of any real use this particular group of students. Plans will be formulated, for the approval of the faculties concerned, to proceed with these group tutorials but at an earlier date in the session.

With Varsity Guest Weekend now well on the way to smooth functioning, the Students' Council is anxious to assist with school visits as another means of increasing the public understanding of the nature and purpose of university education. A small beginning in this direction has been made this spring and the matter will receive further attention next session.

Naturally the department is interested in means of financial assistance for deserving students. University policy in these matters is under development. Students are becoming more aware that help can be given when needed.

During the session the staff was steadily busy with individual counselling. It is a pleasure to record the helpfulness of members of the staff and administration in the daily details of our work.

The Director was able to attend the National Conference of Canadian Universities and the meetings of the University Counselling and Placement Association last June. Such experiences are most helpful in gaining useful information and perspective.

Report of the Chairman of the Committee on Physical Education, Dr. P. S. Warren

The Department of Physical Education has spent a busy and profitable year. The degree course in Physical Education continues to be the most important phase of the activity of the department. This year the first class in the course is graduating and there are more requests for personnel than can be supplied. This phase of our work has been remarkably satisfactory. The intramural program of sporting activities has been remarkably successful since coming under the control of the Department of Physical Education. It is proving very popular with the student body, especially for those students who always like to inquire about the destination of their five-dollar fee.

The important items of the work in the Department of Physical Education are mentioned in order below:

Bachelor of Education in Physical Education

The 1952-53 academic session marks the first year in which the full Physical Education degree course has been offered. This year 12 students are graduating, all of whom have accepted teaching positions in various parts of the

province. It is interesting to note that there were many more vacancies in the field of Physical Education than graduating students available.

Intercollegiate Program

The intercollegiate athletic program is gradually expanding. However, a really intelligent and productive program is dependent upon the ultimate co-operation of the four western universities toward a fully operative Western Intercollegiate Conference. The significance of such a conference in its potential contribution to campus life should be placed before University administrators for discussion and analysis.

This year the University's senior men's basketball team won the western intercollegiate title, the provincial title, the Western Canada championship, and lost out to the Toronto Tri-Bells by four points in the fifth and deciding game for the Canadian championship. The University team is the first Alberta team to have won the western championship and competed in the Canadian finals in the history of modern Canadian basketball. Over 7,000 people attended the five games played with the Toronto Tri-Bells. It would appear that basketball has gained much popularity on the campus and amongst the sport fans in Edmonton.

During the 1952-53 session the women's team competed in eight intercollegiate events with the University of Manitoba and the University of Saskatchewan. The results of their efforts have set an all-time high for women's sports on the campus, since the University of Alberta was declared the winner in every competition. These sports included golf, tennis, basketball, curling, figure skating, swimming, and volleyball.

Intramural Program

The intramural program, with literally hundreds of teams in eight or nine different activities, supported by well over 60 per cent of the student body, is operating to capacity. Present facilities and staff make it impossible to expand the intramural program beyond its current limits. The intramural program is becoming increasingly popular and is demanding more and more administration time.

Summer Employment

Cities and towns all over the province of Alberta are more and more looking to the University Department of Physical Education for summer recreation personnel. The department has been able to service most of these requests but finds it quite impossible to provide enough fully trained people in the field of aquatics. Since the University has no swimming pool, it is impossible to give adequate training to first, second and third year students, leaving only the fourth year students who can be advanced far enough to be fully certificated.

Report of the Director of Student Medical Services, Dr. John W. Scott

The session 1952-53 has been free from any major epidemics among the student body and has been free from any major accidents.

The greater part of Student Medical Services activities is centred around the University Infirmary. Dr. J. F. Elliott and Dr. M. M. Cantor act as Infirmary physicians, with Dr. M. Hutton as a consultant in gynaecology. The nursing service is carried out for the most part by Miss Revell and Mrs. Ward with part-time assistants. Dr. S. Spaner acts as consultant in psychiatry and has rendered very valuable service during the past year in this capacity.

All incoming freshmen students received a complete physical examination on admission last September. Most of these students had chest x-rays done through the co-operation of the Tuberculosis Division of the Department of Health.

There were a number of student admissions to the University Hospital for major illnesses.

The most pressing need at the moment is for expanded waiting-room facilities in the Infirmary. An adequate number of beds have been provided; however, since most of the work is of the out-patient type, it is desirable that we have increased facilities to meet this demand. The present waiting room is such that there is not enough room for patients to sit down and they find it necessary to stand in order to get into the building. This is rather undesirable in dealing with sick people. It is hoped that an extension to the waiting room may be made available during the present summer.

Report of the Radio Secretary, Miss Margery W. MacKenzie

The University of Alberta has broadcast programs over radio station CKUA on much the same basis as it has since the Alberta Government Telephones assumed operation of the station in 1945. Of the three hours a day, five days a week, presently allotted to it, one hour a day, a noon music hour, has been left in the hands of the CKUA staff. Of the other two hours a day, one hour in the early evening has been devoted to good music. The other hour has included programs dealing with science, literature, drama, agriculture, world affairs, educational research, music and adult education. All but two of these program series have been presented in the early evening.

Members of the University of Alberta faculty have assumed responsibility for the broadcast of ten regular program series, involving 191 programs of 15 or 30 minutes' duration and totalling more than 61 hours of broadcasting. In addition to these, two series, the Music Hour, with five hour-long broadcasts a week, and the *Alberta Farm and Home Forum*, with three 15-minute broadcasts a week, continue throughout the entire twelve months of the year. These two programs constitute an additional 300 hours of broadcasting in the year.

During the University term the broadcasting has been done from the campus studios. Summer programs have been presented from the CKUA studios. Operation of controls and announcing for the evening programs presented from the campus studios has been handled by the regular staff of Radio Service.

In an effort to increase the effectiveness of University broadcasting, Mr. Alan Hood, formerly of the staff of CKUA, was appointed to the staff of Radio Service as a part-time program producer. Mr. Hood gave assistance to those participating in programs and supervised the announcing of the student assistants. As a convenience to broadcasters, a total of 181 of the programs were this year tape-recorded in the University studios and were presented as recorded programs.

In the course of the year eight printed program schedules of *The University of Alberta on the Air* served to publicize the University programs. Approximately 2,500 copies of each of these schedules were distributed, on request, to interested listeners. Five of the program schedules cover the winter series and three the summer programs.

The 1952-53 season saw the introduction of three new program series, *Great Literature*, *Music of My Choosing* and *Your University*. The first-mentioned

in some measure replaced the programs *Chimney Corner* and *Books at Random* which were discontinued. The other two were entirely new programs. At the end of March the series *Alberta Farm and Home Forum* was discontinued in view of the establishment by the Provincial Government of a similar program to be broadcast five days a week with province-wide coverage.

Following are the program series presented by the University of Alberta during the 1952-53 year. Except where otherwise stated, the programs were of 15-minute duration.

Alberta Farm and Home Forum. Conveners: E. B. Swindlehurst, S. O. Hillerud
150 programs

Presented jointly by the Provincial Department of Agriculture and the University of Alberta, these forums were broadcast three times a week throughout the entire year.

Behind the Headlines. Conveners: G. Samuel, W. H. Johns, H. B. Mayo
23 programs

Members of the University faculty and visiting speakers contributed to this series, which dealt with current national and international problems.

Great Literature. Convener: M. W. MacKenzie
10 programs

Introduced after Christmas, this series included discussions of certain outstanding works in Greek, Roman, Hebrew, Russian and English literature.

Music Hour. Convener: R. S. Eaton
260 1-hour programs

Presented from 6:45-7:45 in the evening Monday through Friday throughout the entire year, these programs continue to include the best in chamber, choral, and solo instrumental music, as well as opera and symphony, during the first four programs of the week. The Friday evening program takes the form of a listeners' request concert.

Music of My Choosing. Convener: A. Hood
18 ½-hour programs

In the course of this series, certain members of the University faculty played and discussed musical selections of their own choice.

Studio Theatre. Convener: R. H. G. Orchard
23 ½-hour programs

The programs in this series were closely related to the various stage productions presented during the year by the University's Studio Theatre.

Western Board of Music. Convener: A. B. Crighton
11 ½-hour programs

Presented by Edmonton musicians and teachers with program notes by Mr. Crighton, these programs illustrated music from the piano, violin, clarinet and flute syllabus of the Western Board of Music.

Why Stop Learning? Convener: D. D. Campbell
23 programs

This series dealt with the work being done by the Department of Extension in the various fields of adult education.

World of Science. Convener: D. B. Scott
10 programs

These programs offered glimpses into a number of the fields of scientific endeavor with which the University is concerned.

Your Child at School. Convener: B. E. Walker 22 programs

Discussions and talks on educational problems together with a special series, *Visits to the Classroom*, presented with the co-operation of the University Demonstration School, made up this series.

Your Home and You. Convener: M. Patrick 22 programs

Presented by staff members of the Department of Household Economics, these mid-aftnoon programs were especially directed towards women in their homes.

Your University. Convener: A. Stewart 22 programs

Designed to make the citizens of the province better aware of the organization and the work of the University of Alberta, this series was introduced by the Chancellor, the Chairman of the Board of Governors and the President, and continued with talks by the Deans and Faculties and the Directors of Schools. The last four programs, under the direction of the Student Advisory Services, were designed specifically for senior high school students interested in attending the University of Alberta. Arrangements were made for the rebroadcast of these four programs in Calgary and in Grande Prairie.

Student Programs. Convener: D. Gell

Throughout the University term, Thursday evening has been designated as 'student night' and following the Music Hour many of the programs broadcast over CKUA that evening have been produced by members of the Radio Society. Regular program series included: Western University Drama, Varsity News, Champs or Chumps, Frat Show, Education Undergraduate Society Program, and University Musical Club. Certain sports events and other special activities were also broadcast.

Report of the Western Board of Music in Alberta, by Professor R. S. Eaton

Statistics and Estimates (Candidates and Fees)

Candidates	Feb.	May	June	Total	Fees
Practical	95	.....	706	801	\$ 654.50
Theoretical	199	303	.....	502	3,162.75
				<hr/> 1,303	<hr/> \$3,817.25

This shows an increase of three candidates and a decrease of \$21.66, attributable to a slight decrease of entries in the higher grades.

Revenue from the sale of theory papers (Dec. 1, 1951, to Nov. 30, 1952) was \$32.77. This shows an increase of \$15.25 over a similar period last year.

Centres

(a) Practical:

February, 1952—Edmonton, Calgary, Bowden, Red Deer, Sundre.

June, 1952—*Beaverlodge*, Blairmore, Bonnyville, Calgary, *Camrose*, *Chauvin*, Dawson Creek, Donnelly, Drumheller, Edmonton, Falher, Fort Kent, Girouxville, Grande Prairie, Innisfail, Lacombe, Lethbridge, McLennan, Peace River, Pincher Creek, Red Deer, Rycroft, St. Paul, Spirit River.

(N.B. Italicized centres were new in 1952.)

(b) Theoretical:

February, 1952—25 centres.

May, 1952—29 centres.

Examiners

Mr. Lawrence Cluderay, Vancouver; Mr. Stanley Shale, Victoria; Miss Frances Port, Winnipeg; Mr. Leonard Leacock, Mrs. W. Gordon Egbert, Mrs. Dorothy S. Hare, Mrs. Dorothie Langmo, Calgary; Mr. E. A. Moore, Mme. C. A. LeSaunier, Mrs. O. J. Doney, Miss Geraldine Mason, Mr. A. B. Crighton, Mr. R. S. Eaton, Edmonton.

Diplomas Granted

Spring Convocation—A. Mus.: Sister Mary of St. Constance, Nancy Stevenett.
Fall Convocation—L.Mus.: Lillian Kester; A.Mus.: Ruth Kealy, Norma King,

Dollyann Thachuk, Lubomera Yusypchuk, Dale Bartlett.

New Syllabus

Approximately 400 copies of the new 1952 syllabus were distributed among Alberta music teachers and other interested persons throughout the province. In addition to the revised contents of the syllabus, a new schedule of fees will be in effect for the 1953 examinations. Candidates for the flute were examined for the first time, and there were several trumpet candidates as well.

Broadcasting

Once again local teachers have agreed to assist with the programs illustrating pieces of the syllabus, and we were pleased to present the following well-known Edmonton teachers and musicians: Miss Ruth Chennells, Miss Jocelyn Rogers, Miss Doreen Stanton, Miss Geraldine Mason, Mrs. O. J. Doney, Miss Lubomera Yusypchuk, and Mr. Ray Perrier. One broadcast was also devoted to illustrations from the flute and trumpet syllabi from recordings.

These programs were resumed in the fall of 1952 and so far we have heard Miss Marilyn Webb and Miss Lillian Kester, both of Edmonton.

Recitals

Regional recitals and presentations of awards were held in six centres, and young visiting artists again contributed much to the programs. Centres in which recitals were presented were: Edmonton, Calgary, Lethbridge, Red Deer, St. Paul, and Peace River. The guest artists were: Miss Ardis Liden, Miss Lillian Kester, Miss Penny Wright, Mr. Matthew Spence, and Mr. Kenneth Nichols, of Edmonton; Miss Constance Channon and Miss Sandra Munn of Calgary.

Scholarships, Bursaries, Prizes

In 1952, awards totalling about \$5,000 were made to outstanding students. The Government of Alberta again contributed \$1,000 in the form of ten bursaries. The gold medal offered by the Board of Governors to the candidate receiving the highest mark in completing the final examination of the A.Mus. (Alberta) was awarded to Miss Sandra Munn of Calgary. Twenty-seven silver medals were awarded.

The following new awards were made in 1952: \$20 Music Bursary of the Lord Lascelles Chapter, I.O.D.E. (Lacombe); the Lord Lascelles Chapter, I.O.D.E. (Lacombe) Prize of \$5; the Canadian Nazarene Prize of \$15 (Red

Deer); and the Catholic Women's League Music Prize of \$5 (Rycroft). Also, two former awards were revived—the Edmonton Musicians' Association Bursary of \$75 and the Dalen Music Store Bursary (Grande Prairie) of \$25.

Advisory Service

This service is being continued and the extra time devoted to this work seems to be appreciated, particularly by the rural teachers.

Report of Lt. Col. D. M. Healy, Officer Commanding, University of Alberta Contingent of the Canadian Officers' Training Corps

The officers of the contingent for the academic year were Lt. Col. D. M. Healy, M.B.E., C.D. (Commanding Officer), Major H. J. Bishop, C.D., Major W. T. Reed, Captain A. T. Elder, and the resident Staff Officers, Major J. E. Pincock (until October 31, 1952) and Major R. C. W. Hooper.

During the summer of 1952, fifty-six second lieutenants and officer cadets, all but two of whom qualified for their commissions, took the practical training course. Two of the second lieutenants took their third year of practical training in Germany with the 27th Infantry Brigade. (One second lieutenant will be training in Germany in 1953.) Of those training in Canada in 1952, Second Lieutenant H. A. Kinzel won the Honor Cadet Shield as the best all-round cadet of the Royal Canadian Dental Corps School.

This was another poor year for recruiting; only nine applications, of which eight were accepted, were received during the recruiting period in January and February. The actual number of cadets taking part in the theoretical training given during the winter of 1952-53 was thirteen in the first quarter, seven in the second and fifteen in the third. This last group was given lectures in Military History by Professor D. E. Smith and in Military Geography by Professors P. S. Warren, R. E. Folinsbee, L. H. Nichols, and L. E. Gads. An increase in the number of days of theoretical training from ten to sixteen, authorized in December, 1952, allowed the unit to devote three days of the Christmas holidays to visiting R.C.A.F. Station Edmonton, the Northwest Territories and Yukon Radio System, and Headquarters, Western Command. The year's outstanding social event in which the unit took part was the very successful and well-attended annual Tri-Service Ball, held this year in January at H.M.C.S. Nonsuch.

A new program for subsidizing students who agree to serve for three years in the active force after graduation was introduced in August, 1952. Known as the Regular Officers' Training Plan, this scheme pays all tuition and other university fees, an allowance for books and instruments and, in the student's first year in the plan, a monthly payment of \$30 as well as a subsistence allowance of \$65 per month. In the remaining years of subsidization until the student graduates, the subsistence allowance but not the monthly payment of \$30 is continued. Moreover, during the period of full-time summer training, officers serving under the scheme receive \$170 per month in addition to their board and lodging.

Eight officer cadets, five in their first and three in later university years, were enrolled under this plan during the year. Four other officers are receiving assistance under the older and similar program of subsidizing students in their final year.

Report of Wing Commander L. E. Gads, Commanding Officer, University of Alberta Squadron, R.C.A.F.

On completion of the 1951-52 University term, 74 pilot officers and flight cadets were posted to various R.C.A.F. units throughout Canada for summer training. Once again, the Reserve Officers' School was established at Royal Military College, Kingston, which has proved an ideal location for indoctrination training. Twenty-seven first-year cadets attended the basic indoctrination course held there from May 5 to June 19. Following this course, aircrew and technical trainees proceeded to their respective schools to commence specialist training while non-technical trainees remained at Kingston until July 24 for an Advanced Officer Development Course. Wing Commander Gads, Flight Lieutenant Crighton and Flight Lieutenant Wallace from this Squadron served on the training staff at R.M.C.

Second and third year cadets either continued their specialist courses at various training establishments or were assigned practical employment commensurate with their officer status.

Worthy of note was the marked increase in the number of cadets accepted for aircrew training. During the summer of 1951 two aircrew candidates were finally accepted from this University, whereas last summer 11 received training as pilots or navigators. These aircrew trainees made an excellent showing and all but one completed the first phase of their training successfully. It is anticipated that this increased demand for aircrew trainees will continue in future years.

During the 1952-53 term the staff establishment for this Squadron was increased from three to six officers, with a corresponding increase in allotted ranks. As a result, Squadron Leader Gads was promoted to Wing Commander in January, and Flight Lieutenant B. E. Riedel, the Squadron training officer, should receive his promotion to Squadron Leader in the near future. Flight Lieutenant A. B. Crighton is still serving as Administrative Officer and Mr. A. B. Weston from the Law Faculty will shortly be taken into the Squadron as his assistant. The position of Resident Staff Officer is filled by Flight Lieutenant R. A. Wallace.

Recruiting in the squadron continued its definite downward trend during this term and only 12 new cadets were enrolled in the Primary Reserve against an allotted quota of 25. The main reason for this lack of response still continues to be the high wages available to students for summer jobs in civilian industry with which the services cannot compete. For the first time four female students were accepted for officer training, and Squadron strength was further increased by the acceptance of nine candidates for subsidization under the Regular Officers' Training Plan.

A very successful winter training program was carried out this year with the combined assistance of various members of the faculty and several of the staff officers from Tactical Air Group Headquarters, Edmonton. The number of training hours were increased considerably over last year, with a corresponding increase in pay entitlements.

The following is a recapitulation of the present Squadron strength, totalling 80: 1949-50 intake, 10 pilot officers; 1950-51 intake, 23 pilot officers; 1951-52 intake, 20 flight cadets; 1952-53 intake, 15 flight cadets in Reserve, 9 flight cadets in R.O.T.P. Final-year subsidization, 3 pilot officers (Regular Force).

This total may be divided into faculties as follows: Engineering, 32; Arts and Science, 24; Medicine, 10; Education, 6; Law, 3; Agriculture, 2; Pharmacy, 1; Theology, 1; Household Economics, 1.

Nine cadets from the 1948-49 intake graduated from University during the 1951-52 term and were transferred to the R.C.A.F. Supplementary Reserve as qualified officers in their respective branches. Seven others who had completed their training with the Squadron but are still attending University have transferred to 418 Auxiliary Squadron or 4001 Auxiliary Medical Unit as fully qualified specialist officers.

Posting instructions are now being received for the forthcoming summer and indicate that cadets will once again be sent out to units all across Canada. In addition, three of the senior cadets have received overseas posting to the R.C.A.F. Fighter Wing in Great Britain. The Reserve Officers' School will again be held at R.M.C. Kingston and will be attended by all first-year cadets. Wing Commander Gads is the only officer from the staff who will be able to attend the school this year. Flying Officer Weston is posted to Clinton, Ontario, to assist in officer development training.

Report of Lieutenant Commander (L) R. E. Phillips, Commanding Officer of the University Naval Training Division

Early in April 1952 thirty-one cadets were drafted to the Reserve Training Establishment at Esquimalt for summer training. This training was carried out ashore and afloat.

In the fall of 1952 twenty-nine students were recruited as Probationary Cadets. A R.C.N. Selection Board in January 1953 promoted fourteen of these to Cadet and those who did not pass the Board were discharged.

The strength of the Division at present is as follows: first year, fourteen cadets; second year, fourteen cadets; and third year, four cadets. During the 1952-53 academic year six third-year cadets were promoted to the rank of Sub-Lieutenant.

The Royal Canadian Navy instituted a Regular Officer Training Plan in the fall of 1952 under which U.N.T.D. cadets and high school students in possession of their senior matriculation will be accepted into the R.C.N. as cadets and will complete from two to four years of university training before joining the fleet for full duties. Cost of tuition, other obligatory fees and books will be borne by the Navy. While in attendance at University a subsistence allowance of \$65 per month will be paid and pay of \$30 per month during the first year only. One cadet already enrolled in the U.N.T.D. transferred to this plan.

Thirty parades were held during the year, including a special parade on November 11 and on the occasion of the visit of the Assistant Director of Naval Training, Cdr. W. Fowler, R.C.N.

The first-year cadets and one officer attached to the U.N.T.D. have been selected for the Coronation cruise.

The officer complement for the year consisted of the following:

Lt. Cdr. (L.) R. E. Phillips, R.C.N.(R.), Commanding Officer

Lt. Cdr. W. J. McCorkell, R.C.N.(R.), Executive Officer

Lt. (P.) R. F. Lavack, R.C.N.(R.), Staff Officer

Lt. W. S. T. Jackson, R.C.N.(R.)

S. Lt. R. Skjiei, R.C.N.(R.)

S. Lt. P. G. Stewart, R.C.N.(R.)

**Report of the Director of the Department of Extension,
Mr. Donald Cameron**

Statistical Survey

Lectures

University teaching staff	916		
Department of Extension staff	299		
	—	1,215	
Aggregate attendance			80,124
Number of radio talks:			
Extension staff	48		
Teaching staff	163		
	—	211	
Conferences and short courses, Table XIII			4,947
Studio Theatre attendance		8,500	
Feeders' Day attendance	800		
Breton Field Day	350		
Plant Science Field Day	200		
	—		1,350

Visual Instruction

Number of sets of standard slides sent out	25		
Number of 2x2 slides sent out	353		
Number of times slides were used	299		
Total audience viewing slides			11,456
Sets of filmstrips sent out	1,848		
Individual filmstrips sent out	3,760		
Number of times filmstrips were shown	2,342		
Total audiences viewing filmstrips			89,314
Number of slide lanterns loaned	50		
Number of filmstrip and 2x2 projectors loaned	125		
Sets of silent films sent out	228		
Sets of sound films sent out	4,303		
Number of reels of sound films sent out	18,340		
Total sets of moving picture films sent out	4,531		
Total number of reels of moving picture films sent out	19,201		
Total number of showings of films, sound and silent	5,812		
Total audiences viewing films, sound and silent			474,633
Number of times projection services supplied	336		
Branch library film showings	1,594		
Number of reels sent out from branch libraries			
Aggregate attendance at film showings from branch libraries			119,044

Library and Debating Service

Number of travelling libraries in use	482		
Number of times sent out—			
Regular libraries	159		
Special libraries	323		
Recorded circulation			31,117

Open-Shelf Circulation

Books:—			
Adult	40,664		
Juvenile	12,688		
Banff School	7,104		
Plays	1,321		
Periodicals and pamphlets	2,195		
			63,972
Number of package libraries for debaters sent out			20

Study Group Material

Number of Citizens' Forum bulletins sent out	2,075
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New Canadian Plays

Number of copies of New Canadian Plays sold	135
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Publications

Press bulletin, Seasonal Notes	10,000	
Press bulletin, Feeders' Day Porgram	4,000	
		14,000
Agricultural bulletins sent out during year	17,991	
Mimeos, circulars and other bulletins sent out	400	
		18,391
Total number of bulletins distributed since inception of service	560,046	
MAT circulation		2,800
The New Trail, number sent out		15,200

Recapitulation

Total aggregate attendance at lectures, conferences, schools and short courses, lantern slide lectures, filmstrip programs, moving pictures, circulating film exchange, Studio Theatre, field days	789,398
Total circulation of travelling library books, open shelf, package librar- ies for debaters, Citizens' Forum bulletins, New Canadian plays	96,319
Total circulation of press bulletins, agricultural publications, The New Trail, MAT	50,391

Conclusion

In concluding this fortieth annual report on the extension activities of the University, acknowledgment must be made of the increasingly important contribution made to the University program by many firms, organizations and individuals who have given generously of their time, resources and energies in this form of public service. Without this wholehearted co-operation, much of the work could not be done.

A review of the extension program over the last five years shows an increasing demand for and interest in continuing education. This trend is particularly evident in the fields of business and industry. Such an interest is healthy and challenging. By providing the opportunity for the faculty to come in intimate contact with the problems of a rapidly changing and expanding community, the University is served, because these men return to their classrooms with a first-hand and practical knowledge of the problems in their own particular fields. The community is served by drawing on men who bring to their field of interest wide training, an objective approach, and a sense of perspective.

So long as the University continues to seek out and meet the demands of the people it serves, so long will it continue to grow in strength and importance. It can only meet those needs by effectively mobilizing the educational resources of its constituency. That is the challenge to present-day University extension work and extension workers. In accepting it, the University can fulfill its destiny and make a greater return to the community than ever before.

The complete Annual Report on Extension Activities of the University of Alberta for the year ended March 31, 1953, which includes a report on the 1952 session of the Banff School of Fine Arts, is available in printed form.

Table XIII—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension

Course, Class, Conference	Sponsor	Place	Period	Hours' Duration	Attendance
1. Beginners' Ukrainian	Department of Extension	Edmonton	Oct. 13 - Dec. 15	15	36
2. Intermediate Ukrainian	Department of Extension	Edmonton	Oct. 13 - Mar. 30	30	39
3. Business Management	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	54
4. World Affairs	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	51
5. Conversational French	Department of Extension	Edmonton	Oct. 15 - Dec. 17	15	40
6. Business and Industrial Psychology	Department of Extension	Edmonton	Oct. 16 - Dec. 18	15	40
7. Music Appreciation I	Department of Extension	Edmonton	Oct. 16 - Dec. 18	15	75
8. Ukrainian Literature	Department of Extension	Edmonton	Oct. 17 - Apr. 3	30	60
9. Appreciation of Literature	Department of Extension	Edmonton	Oct. 17 - Dec. 19	15	35
10. Music Appreciation II	Department of Extension	Edmonton	Jan. 26 - Mar. 30	15	16
11. The Great Philosophers	Department of Extension	Edmonton	Jan. 27 - Mar. 31	15	45
12. Comparative Religion	Department of Extension	Edmonton	Jan. 27 - Mar. 31	15	14
13. Psychology of Personality and Adjustment	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	52
14. The English Novel	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	15
15. Story of the Canadian West	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	17
16. Sight Singing and Aural Training	Department of Extension	Edmonton	Feb. 13 - Apr. 16	15	14
17. Home Designing and Planning	Department of Extension	Edmonton	Jan. 30 - Apr. 9	15	25
18. Commercial Law	Department of Extension	Calgary	Jan. 26 - Mar. 30	15	49
19. Home Designing and Planning	Department of Extension	Calgary	Jan. 26 - Mar. 30	15	39
20. Music Appreciation	Department of Extension	Calgary	Jan. 27 - Mar. 31	15	32
21. Appreciation of Literature	Department of Extension	Calgary	Jan. 27 - Mar. 31	15	9
22. History of the Canadian West	Department of Extension	Calgary	Jan. 27 - Mar. 31	15	16
23. World Affairs	Department of Extension	Calgary	Jan. 28 - Apr. 1	15	18
24. Psychology of Personality and Adjustment	Department of Extension	Calgary	Jan. 28 - Apr. 1	15	33
25. Principles of Gardening	Department of Extension	Calgary	Jan. 28 - Apr. 1	15	16
26. World Affairs	Department of Extension	Camrose	Jan. 20 - Mar. 24	15	12
27. Music Appreciation	Department of Extension	Camrose	Jan. 22 - Mar. 26	15	14
28. World Affairs	Department of Extension	Red Deer	Jan. 20 - Mar. 24	15	15
29. Psychology of Personality and Adjustment	Department of Extension	Red Deer	Jan. 22 - Mar. 26	15	10
30. Education 308	Department of Extension	Edmonton	Oct. 6 - Apr. 6	75	18
31. Education 326-526	Department of Extension	Edmonton	Oct. 6 - Apr. 6	75	17
32. French 2	Department of Extension	Edmonton	Oct. 6 - Apr. 6	75	2
33. Political Economy	Department of Extension	Edmonton	Oct. 7 - Apr. 7	75	23
34. English 2	Department of Extension	Edmonton	Oct. 7 - Apr. 7	75	31
35. Philosophy 54	Department of Extension	Edmonton	Oct. 8 - Apr. 8	75	22
36. English 2	Department of Extension	Calgary	Oct. 6 - Apr. 6	75	19
37. Life Drawing and Painting	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 13 - Apr. 7	46	9
38. Portrait, Life Drawing and Painting II	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 13 - Apr. 7	46	20

39. Composition: Water Color and Oil	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 13 - Apr. 7	46	13
40. Composition and Decorative Painting	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 14 - Apr. 8	46	4
41. Anatomy	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 14 - Apr. 8	46	7
42. Painting Techniques	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 15 - Apr. 9	46	11
43. Portrait and Life Drawing 1	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 15 - Apr. 9	46	14
44. Composition: Water Color and Oil	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 15 - Apr. 9	46	30
45. Graphic Art	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 15 - Apr. 9	46	6
46. Lettering and Layout	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 15 - Apr. 9	46	9
47. Still Life Painting	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 16 - Apr. 10	46	5
48. Color and Design	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 16 - Apr. 10	46	6
49. Portrait Painting in Oils	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 17 - Apr. 11	46	5
50. Silk Screen Printing	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 17 - Apr. 11	46	7
51. Children's Class in Art	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 18 - Apr. 12	46	71
52. General Art Class	Dept. of Extension, Dept. of Fine Arts	Edmonton	Oct. 17 - Apr. 11	46	8
53. Community Art Class	Brooks Sketch Club	Brooks	Oct. 22 - Mar. 19	12	15
54. Community Art Class	Medicine Hat Art Club	Medicine Hat	Oct. 23 - Mar. 20	48	35
55. Community Art Class	Camrose Art Club	Camrose	Oct. 31 - Mar. 20	20	18
56. Community Art Class	High River Sketch Club	High River	Jan. 15 - Mar. 20	24	22
57. Community Art Class	Lacombe Art Club	Lacombe	Nov. 7 - Mar. 20	20	12
58. Community Art Class	Lloydminster Art Club	Lloydminster	Nov. 18 - Mar. 10	20	30
59. Community Art Class	Mannville Art Club	Mannville	Nov. 20 - Apr. 2	20	15
60. Community Art Class	Red Deer Art Club	Red Deer	Nov. 13 - Apr. 9	40	17
61. Community Art Class	Smoky Lake Art Club	Smoky Lake	Nov. 8 - Mar. 28	20	8
62. Community Art Class	St. Paul Art Club	St. Paul	Nov. 7 - Mar. 27	20	18
63. Community Art Class	Vulcan Art Club	Vulcan	Jan. 13 - Mar. 17	20	10
64. Community Art Class	Wetaskiwin Art Club	Wetaskiwin	Oct. 24 - Mar. 13	20	10
65. Community Art Class	Westlock Art Club	Westlock	Nov. 4 - Mar. 24	20	10
66. Community Art Class	Department of Extension	Dawson Creek	Apr. 30 - May 9	50	22
67. Personnel Management Course	Department of Psychology and I.A.P.E.S.	Calgary	Jan. 23 - Mar. 27	20	36
68. Accounting 1	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 6 - Mar. 23	40	21
69. Business Mathematics	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 6 - Mar. 23	40	22
70. Industrial Organization and Management	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 6 - Mar. 23	40	14
71. Fundamentals of Cost Accounting	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 6 - Mar. 23	40	15
72. Accounting 1	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 6 - Mar. 23	40	25
73. Business Mathematics	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 6 - Mar. 23	40	28
74. Industrial Organization and Management	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 6 - Mar. 23	40	15
75. Fundamentals of Cost Accounting	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 6 - Mar. 23	40	20

Table XIII (Continued)

	Sponsor	Place	Period	Hours' Duration	Attendance
76.	Master Class in Piano	Edmonton	Jan. 13 - Jan. 15	8	26
77.	Senior Actors' Workshop	Edmonton	Oct. 20 - Mar. 28	80	13
78.	Junior Actors' Workshop	Edmonton	Oct. 20 - Mar. 28	80	14
79.	Advanced Management Course	Banff	Jan. 19 - Feb. 28	175	35
80.	Committee Members' Workshop	Camrose	Mar. 2	8	140
81.	Improving Nursing Care	Edmonton	Feb. 18 - Feb. 28	8	79
82.	Nursing Guidance	Edmonton	Mar. 16 - Mar. 18	20	33
83.	Nursing Guidance	Calgary	Mar. 19 - Mar. 21	20	30
84.	Committee Members' Workshop	Nanton	Mar. 20 - Mar. 21	12	65
85.	Committee Members' Workshop	High River	Mar. 23 - Mar. 24	12	54
86.	Committee Members' Workshop	Drumheller	Mar. 27	8	26
87.	June Short Course in Painting	Banff	Jun. 23 - July 5	60	42
88.	Autumn Short Course in Painting	Banff	Aug. 18 - Sep. 13	120	21
89.	Banff School of Fine Arts	Banff	July 7 - Aug. 16	...	474
90.	Summer Session Institute on Nursing in Industry	Edmonton	Mar. 20 - Mar. 21	11	26
91.	Improving Nursing Care	Lethbridge	Mar. 25 - Mar. 27	18	84
92.	Administration in Public Health Nursing	Edmonton	Oct. 27 - Oct. 31	12	22
93.	Oilwell-Drilling Safety Clinic	Banff	Apr. 17 - Apr. 18	11	90
94.	Oil-Treating School	Edmonton	May 19 - May 30	30	24
95.	Drilling Engine School	Edmonton	Jun. 2 - Jun. 20	36	42
96.	Cost Accounting in Oilwell Drilling	Calgary	Jun. 9 - Jun. 12	22	66
97.	Cost Accounting in Oilwell Drilling	Edmonton	Jun. 23 - Jun. 26	22	47
98.	Mud School	Devon	Jun. 30 - July 11	60	24
99.	Mud School	Edmonton	July 21 - Aug. 1	60	26
100.	Oil-Treating School	Edmonton	Sep. 1 - Sep. 12	30	23

101. Supervisors' Safety School	Department of Extension (P.I.T.S.)	Lloydminster	Oct. 22 - Oct. 23	3	52
102. Occupational Safety School	Department of Extension (P.I.T.S.)	Lloydminster	Nov. 28	3	72
103. Welding School	Dept. of Extension, Dept. of Industries and Labour, Canadian Liquid Air	Edmonton	Nov. 10 - Nov. 14	12	16
104. Welding School	Dept. of Extension, Dept. of Industries and Labour, Canadian Liquid Air	Lloydminster	Nov. 24 - Nov. 27	12	10
105. Petroleum Geology Course	Dept. of Extension, Imperial Oil, Shell Oil, Texaco, Lane Wells	Edmonton	Mar. 2 - Mar. 30	10	65
106. Handling and Running Casing	C.A.O.D.C., W.C.P.A., Dept. of Extension	Calgary	Sep. 19 - Sep. 20	3	82
107. Handling and Running Casing	C.A.O.D.C., W.C.P.A., Dept. of Extension	Edmonton	Sep. 22 - Sep. 26	3	145
108. Handling and Running Casing	C.A.O.D.C., W.C.P.A., Dept. of Extension	Lloydminster	Sep. 29	3	46
109. Farm Young People's Week	Fac. of Agriculture, School of Nursing, School of Household Economics, Department of Extension	Edmonton	July 10 - July 18	75	170
110. Rural Leadership	Department of Extension	Banff	Oct. 27 - Nov. 8	90	23
111. Group Discussion Techniques Workshop	Alberta Home and School Association	Banff	Sep. 10 - Sep. 12	20	52
112. Community Life Conference	Dept. of Agriculture and Fairview Business Men's Association	Fairview	July 2 - July 5	30	101
113. Community Life Conference	Dept. of Agriculture and Community Organizations	Beaverlodge	July 7 - July 10	30	500
114. Rural Leadership Skills Course	Drumheller District Agricultural Society	Drumheller	July 16 - July 20	15	23
115. Acting Class	Wetaskiwin Theatre Guild	Wetaskiwin	Feb. 1 - May 31	60	15
116. Acting Class	Children's Theatre	Edmonton	Oct. 1 - Nov. 15	60	15
117. Film Workshop	High Prairie School Division	Falher	Sep. 24 - Sep. 25	5	110
118. Film Institute and Workshop	Department of Extension	Peace River	Oct. 1 - Oct. 2	6	12
119. Film Institute and Workshop	Department of Extension	Fairview	Oct. 4 - Oct. 7	8	21
120. Film Institute and Workshop	Department of Extension	Grande Prairie	Oct. 10 - Oct. 14	7	16
121. Film Institute and Workshop	Department of Extension	Dawson Creek	Oct. 15 - Oct. 19	4	19
122. Film Workshop	Department of Extension, Red Deer Film Council and National Film Board	Red Deer	Feb. 11 - Feb. 12	10	50
123. Choral Leadership	Department of Extension	Mayerthorpe	Nov. 19 - Feb. 4	20	19
124. Soil Mechanics	Department of Extension and Department of Civil Engineering	Edmonton	Apr. 21 - Apr. 25	30	41
125. Group Discussion Workshop	Alberta Federation of Home and School Associations and Dept. of Extension	Calgary	Jan. 14 - Mar. 26	24	34
126. Group Discussion Workshop	Alberta Federation of Home and School Associations and Dept. of Extension	Edmonton	Jan. 21 - Apr. 2	24	18
					<hr/> 4,947

Report of Dr. R. D. Stuart, Director of the Provincial Laboratory of Public Health

During 1952 the Provincial Laboratories carried out 252,780 examinations; the work done has increased by 39,608 examination or by 18 per cent.

Special Trends

This year, and for the first time, an attempt was made to obtain the benefits of bulk buying by combining many of the supply orders from our two laboratories. Much additional work fell on the staff of the Central Laboratory in consequence, but it was possible in a number of instances to obtain maximum quantity discounts of 10 to 15 per cent, where individual orders might have received 5 per cent or less. This procedure will be continued and it is hoped will become easier through experience.

In the Central Provincial Laboratory—In Edmonton, the importance of laboratory tests in the control of antibiotic therapy, suggested in last year's report, has been strikingly confirmed by the dramatic increase in such examinations. This is likely to be a continuing trend. So also is the provision of gonococcal culture facilities offered as a new service last year; by this means the number of smear examinations considered necessary in tests for cure has been reduced from seven to three, yet the laboratory tests are considered more reliable. The service has lately been extended to the Calgary Clinic and although it is being conducted temporarily by the Central Laboratory it will be transferred to the Southern Branch as soon as expedient. Continuing development is also shown in Mycology, a 35 per cent increase in examinations being recorded. In sanitary bacteriology a new trend is shown in the increasing support of the laboratory to field testing of stream pollution carried out by the Division of Sanitary Engineering. This may develop into a regularly organized service.

Dr. Macgregor, Provincial Pathologist, records continuing increase in demand for smear diagnosis of malignant disease. Specimens of vaginal secretion, bronchial secretion and sputum, and gastric washings submitted for this purpose showed an increase of 32 per cent over last year.

The diminishing volume of medico-legal work being carried out is considered an inevitable and sensible trend. Certain aspects of this work, as the typing of bloods in criminal cases, cannot be carried out satisfactorily as sporadic examinations and might with advantage be transferred to a forensic laboratory, such as the R.C.M.P. Laboratory in Regina, where a specially trained staff devotes its full time to the laboratory investigation of medico-legal problems.

In the Southern Branch Laboratory—In Calgary, increasing interest continues in many aspects of bacteriological investigation. It is probable that even more distinct evidence of development would have been forthcoming had the activities of the laboratory not been inhibited by the unfortunate illness of the Director. Nevertheless, the fact that its general activities were so well maintained is a credit to Dr. Shute's deputy, Dr. Crichton, and is evidence of the amount of assistance Dr. Shute himself provided even from his sick-bed.

New or Supplementary Services

The Central Laboratory has established a new service for the identification of Leptospiral infections. The increasing importance of these, particularly in

agricultural areas, is shown in an editorial of the December 6th issue of the Journal of the American Medical Association.

During the year a method of wet-film diagnosis for biopsies of brain specimens was introduced by the staff of the Pathology Department and proved to be an accurate procedure for the diagnosis of brain lesions. The value of this method is being further studied.

In tuberculosis, the work on the haemagglutination tests mentioned in last year's report has been stopped. At the present stage of their development, the results were too unreliable to warrant their continuation. Some interesting observations have been made on the use of fluorescence microscopy in smear diagnosis but this has not yet been applied to the service.

Regular Laboratory Services—

General Bacteriology

The general diagnostic services have been adequately used by hospitals and to a striking degree by certain individual practitioners even from quite remote areas. No large-scale bacterial epidemics were encountered though a slight increase was recorded in the occurrence of diphtheria and tularemia. In one instance *Pasteurella tularensis* was itself isolated from autopsy material brought to the laboratory. The enterobacteriology section identified a small outbreak of paratyphoid infection in Yellowknife for the third year in succession. Much interest was aroused by the isolation of *Salmonella heidelberg* from four human cases; this is the first time this organism has been identified in Canada and the discovery led to an intensive investigation by the Provincial Veterinary Laboratory to determine its presence in certain poultry flocks from which it had apparently been conveyed to man. Our happy association with the Provincial Veterinary Laboratory has led to many such findings of mutual interest and an increasing realization of the epidemiological interdependence of the laboratories.

The increased number of examinations in syphilis serology in the Central Laboratory is mainly due to the examination of umbilical cord blood in an endeavor to detect neo-natal syphilis, a new line of investigation being pursued by the Division of Social Hygiene.

Sanitary Bacteriology

The volume of work carried out in the Southern Laboratory and commented on last year has been maintained. In Edmonton, the number of milks and waters examined has increased considerably due mainly to a developing control program in certain Health Units.

Pathology

The work in the Department of Pathology continued to follow the established pattern, with surgical tissue diagnosis assuming the major role. The value of the examination of all surgical tissue specimens, whether malignancy is suspected or not, is apparent from day to day. As an example might be mentioned a case of Actinomycosis of a Fallopian Tube, picked up on routine examination recently in a patient in whom there was no clinical suspicion of this disease.

In the field of cancer diagnosis, increasing numbers of biopsies lead to the recognition of many early cases of cancer which might otherwise become advanced before clinical recognition becomes possible. There are undoubtedly

many early cases of cancer cured by reason of the tissue diagnostic service offered through the Provincial Laboratory and many lives salvaged.

The numbers of gross and microscopic examinations carried out on surgical specimens totalled 10,545. This is a drop of about 1,000 over the previous year, accounted for by the fact that the Miseracordia Hospital now has a full-time pathologist and the tissue work from that hospital is no longer done in the Provincial Laboratory. Making allowance for this, there has probably been a slight increase in tissues examined from rural points.

Staff

In the Central Laboratory, Dr. H. J. Stirrat transferred from the Bacteriology Laboratory to the Pathology Laboratory. The transfer has relieved Dr. Macgregor of some portion of the enormous burden of routine histological diagnosis he was compelled to carry practically unaided. In the Southern Laboratory the serious illness of Dr. Shute has deprived the laboratory of his immediate services since the end of August. The excellent organization of the laboratory and the willing co-operation of Dr. Crichton has enabled the laboratory to continue its services with efficiency. Fortunately, Dr. Shute has been able to give continued advice on many problems and to assist materially by determining many highly specialized histo-pathological diagnosis in his sickroom.

Table XIV—Work Performed in the Provincial Laboratory, Edmonton, During 1952

	Total 1951	Total 1952	In- crease	De- crease
Sputum examination	982	1,441	459	.....
Diphtheria and haemolytic streptococci	5,312	4,915	.....	397
Typhoid fever (agglutination test)	2,039	1,923	.....	116
Milk	1,438	1,972	534	.....
Water	4,233	5,250	1,017	.....
Guinea pig inoculations	2,103	2,073	.....	30
Miscellaneous bacteriology	7,542	6,297	.....	1,245
Blood cultures	827	832	5	.....
Enterobacteria and intestinal parasites	3,308	3,221	.....	87
Urinalysis	15	10	.....	5
Medico-legal (blood, seminal, etc.)	4	7	3	.....
Cerebro-spinal fluids for Wasserman Test	2,189	2,043	.....	146
Bloods for the quantitative Kahn test	1,493	923	.....	570
Bloods for the Wassermann test	9,865	7,533	.....	2,332
Bloods for the standard Kahn test	9,869	7,352	.....	2,517
Bloods for the presumptive Kahn test	70,755	81,342	10,587	.....
Smears for gonococcus	9,263	10,320	1,057	.....
Cultures for gonococcus	802	5,460	4,658	.....
Pathological histological material	11,572	10,545	.....	1,027
Blood smear examinations	156	167	11	.....
Post-mortem examinations (Edmonton)	374	376	2	.....
Post-mortem reports (outside points)	160	147	.....	13
Ascheim Zondek tests	459	399	.....	60
Frog tests .....	.....	73	73	.....
Fluids for cancer cells	366	410	44	.....
Cancer cytology	53	75	22	.....
Bone marrows	26	23	.....	3
Cerebro-spinal fluid examinations				
(colloidal gold, Pandey)	2,421	2,459	38	.....
Bacteriological examinations (P.M.)	33	70	37	.....
B. abortus examinations (agglutination test)	2,516	1,928	.....	588
P. tularensis (agglutination test)	2,039	1,929	.....	110
Antibiotic sensitiveness, etc. (discs)	8,266	28,310	20,044	.....

Mycological examinations	570	770	200	.....
Weil Felix	4	3		1
Paul Bunnell tests		731	731	.....
T.B. smears and cultures		2,401	2,401	.....
Autogenous vaccines	22	19		3
	<u>161,076</u>	<u>193,749</u>	<u>41,923</u>	<u>9,250</u>

Table XV—Work Performed in the Provincial Laboratory of Public Health,
Southern Branch, Calgary, During the Year 1952

	Totals	Unit Price	Est. Total Value
Sputum examinations	4,034	\$ 2.00	\$ 8,068.00
Diphtheria and haemolytic streptococci	600	1.00	600.00
Typhoid fever (agglutination test)	902	5.00	4,510.00
Milk	789	3.00	2,367.00
Water	1,106	10.00	11,060.00
Guinea pig inoculations	897	10.00	8,970.00
Miscellaneous bacteriology	832	5.00	4,160.00
Blood cultures	112	10.00	1,120.00
Enterobacteria	322	5.00	1,610.00
Intestinal parasites	47	10.00	470.00
Urinalysis	2,759	1.00	2,759.00
Medico-legal (blood, seminal, etc.)			
Blood counts	1,790	6.00	10,740.00
Biochemistry investigations	541	4.00	2,164.00
Cerebro-spinal fluids for the Wasserman test	900	2.00	1,800.00
Bloods for the quantitative Kahn test	380	2.00	760.00
Bloods for the Wassermann test	3,163	2.00	6,326.00
Bloods for the standard Kahn test	2,911	2.00	5,822.00
Bloods for the presumptive Kahn test	23,419	2.00	46,838.00
Smears for gonococcus	3,205	1.00	3,205.00
Van Den Bergh determinations	1	1.00	1.00
Pathological histological material	2,553	15.00	38,295.00
Blood smear examinations	123	5.00	615.00
Post-mortem examinations	9	100.00	900.00
Histology for post-mortems	22	15.00	330.00
Ascheim Zondek examinations			
Bone marrows	1	5.00	5.00
Fluids for cancer cells	105	10.00	1,050.00
Cerebro-spinal fluid examinations (colloidal gold, Pandy)	920	10.00	9,200.00
B. melitensis (agglutination test)			
B. abortus examinations (agglutination test) ...	902	2.50	2,255.00
P. tularensis (agglutination test)	902	2.50	2,255.00
B. melitensis (agglutination test)			
Cattle bloods	2	1.00	2.00
Miscellaneous T.B. smears	338	2.00	676.00
	<u>54,587</u>		<u>\$178,933.00</u>
Autogenous vaccines	6	5.00	30.00
Antibiotic sensitivities	331	5.00	1,655.00
			<u>\$180,618.00</u>

Report of Mr. James A. Kelso, Director of the Industrial Laboratories

I would give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the year July 1, 1952, to June 30, 1953.

Table XVI—Examinations and Analyses

Acid	3	Fruit	2
Alcohol	5	Fruit juice	1
Alfalfa	8	Fungi	7
Aluminum	1	Galena	11
Alloys	1	Gasoline	13
Antifreeze	3	Glauber salts	15
Ash	1	Glass	1
Asbestos	4	Gold	1
Asphalt	4	Grain	8
Barytes	11	Gravel	20
Beef (ground)	220	Grass	2
Bentonite	1	Granite	2
Bitumen	1	Gypsum	6
Blood	239	Hair	7
Bone meal	3	Hay	2
Brain (for alcohol)	54	Honey	1
Brew	2	Industrial chemicals	5
Brine	12	Insects	1
Briquettes	2	Insecticides	2
Breakfast cereal	1	Iron pyrite	3
Butter	2	Iron oxide	1
Calcite	3	Iron	2
Candy	1	Jam	1
Cement	8	Lard	1
Cerebral fluid	12	Liquor—	
Cheese	1	Detailed for A.L.C.B.	54
Chlorine compounds	3	Malt for A.L.C.B.	722
Cinders	5	Miscellaneous	6
Clay	36	Police samples	79
Cigarettes	1	Liquid	4
Cleanser	6	Lime	6
Cloth	7	Limestone	111
Clothes	13	Machine parts	4
Coal	76	Magnesite	1
Coffee	9	Marble	1
Concrete	21	Margarine	1
Cores	47	Marl	6
Cream	1	Meat	4
2-4-D	3	Meat meal	1
D.D.T.	2	Medical chemicals	3
Deposits	21	Medicine	1
Distiller's Grain	1	Metal	3
Dolomite	1	Mica	4
Dust	9	Milk	7
Dye	1	Minerals	3
Egg powder	12	Miscellaneous	17
Fat	9	Molasses	1
Feed—		Mortar	21
Animal	141	Mud	2
Poultry	16	Narcotics (O. and N.D. exhibits) ..	56
Concentrates	7	Oats	5
Fertilizer	1	Obsidium	1
Fire exhibits	3	Ochre	3
Fish	1	Oilcake meal	2
Flax	2	Oil—	
Flour	19	Crude	2
Food (human)	9	Lubricating	9
Fossil	2	Protective	4

Fuel	7	Sugar	5
Edible	1	Sulphur	2
Oil residue	1	Syrup	1
Ore	120	Tallow	1
Paint	17	Tankage	6
Paint remover	1	Tar sands	4
Paper	1	Tile	1
Pills	4	Tea	1
Pipe metal	2	Tar	1
Pitchblende	1	Teeth	1
Plants	1	Tufa	1
Plaster	4	Tobacco	1
Poison exhibits (miscellaneous)	7	Urine	104
Poison examinations (human).....	174	Varsol	1
Police exhibits (miscellaneous)...	51	Varnish	1
Powder	6	Vegetable	2
Pyrite	4	Vinegar	3
Quartz	5	Volcanic ash	1
Rock	130	Water—	
Rubber	3	Sanitary	2,235
Salve	2	Poison	1
Sand	19	Industrial	41
Sandstone	2	Wax	16
Salt	4	Weeds	2
Scale	10	Wire	1
Schist	4	Wheat	55
Sediment	3	Wort	2
Seed	5	Wood	4
Shale	8	Veterinary specimens	520
Silage	2	Engineering Materials—	
Sludge	2	Concrete cylinders	5,466
Soap	21	Electrician gloves	154
Soap powder	14	Lightning arresters	56
Sod	1	Wire rope	12
Soft drinks	1	Oil testing	12
Soils	69	Circuit breaker	1
Sterilizing solutions	6	Calibration checks	3
Steel	17	Resistance box	1
Straw	4		
Stucco	1	Total	11,801

Engineering materials were handled in conjunction with the Departments of Civil and Electrical Engineering. As required, analyses were made for and investigations carried out for various Provincial Government departments—Attorney General, Agriculture, Alberta Liquor Control Board, Mines and Minerals, Health, Veterinary Laboratory, Provincial Secretary, etc. The Provincial Analyst is required to make control analyses for the Alberta Liquor Control Board re various breweries and Alberta Distillers, Ltd. Chemical examinations as required by the Provincial Laboratory and Department of Pathology are carried out by the Provincial Analyst. We have a satisfactory working agreement with the Research Council, particularly the Oil and Gasoline Testing Laboratory and the Industrial Engineer. Necessary court evidence was given by the Provincial Analyst and the Assistant Provincial Analyst under Dominion and Provincial Acts and regulations and the Criminal Code.



REPORT
OF
THE GOVERNORS
OF THE
UNIVERSITY OF ALBERTA
1953-54

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To the Lieutenant Governor in Council

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to submit through the Minister of Education the Report of the University of Alberta, setting forth the revenue and expenditure for the year ending March 31, 1954, and investments as they stood at the end of the fiscal year.

Appended to this report is the Report of the President of the University, in which the academic work of the University for the year, July 1, 1953, to June 30, 1954, is dealt with in detail.

C. M. MACLEOD, Chairman
A. STEWART, President

November 30, 1954

Financial Statements

UNIVERSITY OF ALBERTA BALANCE SHEET AS AT MARCH 31, 1954

STATEMENT A

ASSETS

Buildings and equipment in service:			
Land, buildings and plant, Schedule No. 1	\$12,050,744.56		
Furnishings and equipment, Schedule No. 2	2,386,364.95		
			\$14,437,109.51
Loan receivable:			
Students' Union re Students' Union building, see contra			321,331.64
Investments:			
Provincial direct and guaranteed debentures at book value (market value \$206,500.00), Schedule No. 5			197,530.00
Current:			
Cash on hand and in bank	\$ 340,676.98		
Accounts receivable:			
Sundry debtors	\$ 75,173.72		
Less: Allowance for doubtful accounts	2,500.00		
	\$ 72,673.72		
Government of the Province of Alberta re construction of buildings	194,191.80		
		266,865.52	
Accrued interest		4,604.16	
Merchandise held for resale, Schedule No. 4		107,598.64	
			719,745.30
Prepaid expenses:			
Supplies on hand, Schedule No. 4	\$ 92,697.68		
Unexpired insurance	17,177.11		
Legal retainer fee	375.00		
Unemployment insurance stamps	168.22		
			110,418.01
Other assets:			
Livestock inventory	\$ 26,411.00		
Deposit, Workmen's Compensation Board	8,564.00		
			34,975.00
			\$15,821,109.46
Trust:			
Investments, book value, Schedule No. 5:			
Government of Canada bonds, direct and guaranteed	\$1,371,300.00		
Provincial debentures, direct and guaranteed	444,500.00		
Corporation debentures	2,000.00		
Corporation shares	5,527.43		
	\$ 1,823,327.43		
Cash on hand and in bank	303,976.48		
Loans receivable	99,471.20		
Agreement for sale	200.00		
Real estate, shares and sundry, nominal value	8.00		
Due from general account	5,684.71		
			2,232,937.82
			\$18,054,047.28

LIABILITIES

Capital and surplus:

Capital provided by the Government of the Province of Alberta	\$12,202,720.13	
Capital surplus	<u>2,334,523.70</u>	\$14,537,243.83

Loan payable:

Government of the Province of Alberta re Students' Union building, see contra		321,331.64
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Agreement for purchase of leasehold		9,435.42
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Current:

Accounts payable	\$ 187,533.81	
Due to trust account	<u>5,684.71</u>	193,218.52

Deferred income:

Fees	\$ 6,851.35	
Other	<u>3,135.00</u>	9,986.35

Reserves:

Federal aid funds unexpended	\$ 230,193.56	
Lanad exchange	49,960.00	
University Athletic Board fees unexpended	22,187.16	
Library fees unexpended	20,004.77	
Premium on Rockefeller endowment	18,221.66	
Major alterations and repairs to faculty houses	12,000.00	
Workmen's Compensation Board	10,896.19	
Equipment for civil engineering	6,272.34	
Parking area at St. Stephen's College	3,856.34	
Dining room replacements	1,304.38	
Rink repairs	1,148.16	
Provincial Laboratory of Public Health, operating	58,115.50	
Operating, general	<u>315,733.64</u>	749,893.70
		<u>\$15,821,109.46</u>

Trust:

General endowment, Rockefeller foundation	\$ 500,000.00	
Scholarships:		
Escheated estates	\$508,380.44	
General	<u>359,423.94</u>	867,804.38
Research		318,185.91
Students' grants and loans		131,712.06
General educational purposes		94,862.57
Pensions		53,599.39
Sundry:		
Administered by the University	\$ 75,417.46	
Held on behalf of others	<u>191,356.05</u>	266,773.51
		<u>2,232,937.82</u>
		<u>\$18,054,047.28</u>

Edmonton, Alberta, July 15, 1954

I have audited the books and records of the University of Alberta for the year ended March 31, 1954.

Operating Results

Operations for the year under review resulted in a surplus of \$164,867.25. Details of operations are shown in Statement B.

The surplus for the year was transferred to operating reserve. Transactions within that reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and the branch of the University in Calgary have been provided by the Province direct.

Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Investments, general and trust, were verified by actual examination and agreed with the records of the University.

Capital and surplus transactions during the year are summarized hereunder:

Capital provided by the Government of the Province of Alberta:

Balance as at April 1, 1953	\$11,037,504.60	
Add:		
Advances during the year:		
Agriculture building	604,746.37	
Engineering building	320,000.00	
Banff school administration building	50,000.00	
South laboratory conversion	40,000.00	
Paving	45,637.92	
Other buildings and improvements	27,575.68	
Equipment	77,255.56	
		\$12,202,720.13

Capital surplus:

Balance as at April 1, 1953	\$ 2,117,537.33	
Add:		
Acquired from trust and donated funds:		
Banff school administration building	142,463.96	
Equipment	30,743.58	
Library	1,130.99	
Provided from reserve funds:		
Equipment	11,727.66	
Income contributions:		
Buildings and equipment	3,358.51	
Library	27,561.67	
		2,334,523.70
		<u>\$14,537,243.83</u>

Subject to the foregoing, I certify that, in my opinion, the above Balance Sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1954, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, F.C.A.,
Provincial Auditor

UNIVERSITY OF ALBERTA
STATEMENT OF REVENUE AND EXPENDITURE
FOR THE YEAR ENDED MARCH 31, 1954

STATEMENT B

REVENUE

Grants:		
Province of Alberta:		
General	\$1,700,000.00	
Debt charges, see contra	336,062.91	
Government of Canada:	\$2,036,062.91	
Federal aid	494,186.40	
		\$2,530,249.31
Fees:		
Tuition, Schedule No. 7	\$ 725,658.70	
Examination and special, net, Schedule No. 8	6,568.43	
		732,227.13
Interest on Rockefeller foundation endowment	\$ 15,000.00	
Deduct: Transferred to medical research trust	5,000.00	
		10,000.00
Library fees, see contra		29,877.92
University Athletic Board fees, see contra		15,640.22
Operating departments net revenue, Schedule No. 21		44,736.09
		<u>\$3,362,730.67</u>

EXPENDITURE

Instructional salaries and direct expenses, net, Schedule No. 9		\$2,033,532.30
Maintenance of buildings, Schedule No. 10		360,613.47
Debt charges, see contra		336,062.91
Library:		
Salaries and expenses, Edmonton, Schedule No. 12	\$ 111,445.02	
Salaries and expenses, Calgary, Schedule No. 17	8,192.69	
Provision for library accessions, see contra	29,877.92	
		149,515.63
Administrative salaries and expenses, Schedule No. 11		115,108.43
Upkeep of grounds, Schedule No. 13		40,671.62
Other expenses:		
Pension arrears, Schedule No. 14	\$ 18,048.24	
Student advisory services, Schedule No. 15	15,655.35	
Provision for University Athletic Board expenses, see contra	15,640.22	
Calendars, scientific and other publications, Schedule No. 16	13,520.32	
Alumni office, Schedule No. 18	7,135.49	
Provost's office, Schedule No. 19	7,010.01	
Travelling expenses, instructional staff	5,238.94	
First year committee	249.96	
Exchange	231.26	
		82,729.89
Public service departments net expenditure, as per		
Statement No. 98		77,835.24
Buildings and equipment purchased from income,		
Schedule No. 6		1,793.93
		<u>\$3,197,863.42</u>
Surplus for the year ended March 31, 1954, transferred to		
operating reserve		<u>\$ 164,867.25</u>

UNIVERSITY OF ALBERTA
STATEMENT OF OPERATING RESERVE
FOR THE YEAR ENDED MARCH 31, 1954

STATEMENT C

Balance as at April 1, 1953		\$ 235,147.77
Add:		
Adjustment in respect of previous years		5,787.96
		<hr/>
		\$ 240,975.43
Deduct:		
Provision for:		
Land exchange	\$ 50,000.00	
Equipment for civil engineering	18,000.00	
Parking area at St. Stephen's College	10,000.00	
		<hr/>
		78,000.00
		<hr/>
		\$ 162,935.73
Add:		
Surplus for the year ended March 31, 1954		164,867.25
		<hr/>
		\$ 327,802.98
Deduct:		
Transfer to Provincial Laboratory of Public Health operating reserve:		
Excess of revenue over expenditure		12,069.34
		<hr/>
Balance as at March 31, 1954		\$ 315,733.64
		<hr/>

*To the Governors of the
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1954.

A. STEWART,
President

Report of the President to Convocation

October 31, 1953

Although the population of the Province, and particularly of the City of Edmonton, has been increasing rapidly for a number of years, registrations at the University have not, until recently, reflected any part of this growth. The decline in student numbers, which continued until 1951-2, was explained by the graduation of student veterans. The withdrawal of veterans was not offset by a corresponding increase in the registration of civilian students. The relatively static number of new students entering the University has been attributed to the decline in the birth rate during the 'thirties', and to the attraction of employment opportunities. It has been pointed out also that the increase in population has consisted mainly of young people, whose children are not yet of university age.

In my report to Convocation last fall, I drew attention to a noticeable increase in the number of students entering the first year, and a corresponding increase in total registrations. This unexpected occurrence was traced to an increase in the number of high school students completing matriculation programs in Grade 12.

The same factor is responsible for a further rise in registrations in 1953-4. The number of new students in the first year has increased from 1,071 in 1952-3 to 1,146 in 1953-4, i.e. an increase of 75. Registrations in the senior years reflect the carry-over from the large freshman class in 1952-3. The combined effect is an increase of 205 full-time students to a total of 3,555 in 1953-4.

In the first year, major increases are apparent in Engineering and in Arts and Science. Total registration in Edmonton has reached 704 in Arts and Science, 686 in Education, and 609 in Engineering. The numbers attending the Calgary Branch show little change, with 53 students in Arts and Science, including Commerce, and 196 students in Education.

The increase in freshman registrations over two years must be taken as evidence of a definite trend. Population changes, in the last several years, have resulted in a marked increase in enrolments in the schools of this Province, giving rise to problems of which school boards, the Department of Education, teachers, parents, and taxpayers are acutely conscious. As yet the main impact has been experienced in the elementary grades, but large numbers are moving onward into the junior high school, and even into Grade 10. The advance guard of this movement is already at the doors of the University.

The University enrolments for the past two years indicate the cumulative effect on total registrations of a continuous increase in freshman numbers. Entries into the first year may be expected to increase at an accelerating rate. If this occurs, total registrations will rise sharply from year to year. On the basis of numbers of children now in the elementary grades in the schools of the Province, the number of students proceeding from the schools to institutions of higher education could double within the next ten years.

It is not too early to be giving consideration to this development, and to its implication for higher education in Alberta. At the request of the Board of Governors, the President has appointed a committee, drawn from the faculty, to make a preliminary study of these matters. The committee, under the chairmanship of Dr. W. G. Hardy, has been directed to report on the following:

1. The probable numbers of students proceeding to programs of studies beyond Grade 12 in the next twelve years.

2. The effect of the anticipated increase in numbers on the University under a continued policy of centralizing higher education in Edmonton.

3. Alternative policies of decentralization, including the establishment of other institutions, or branches of the University; and the affiliation of institutions, private or public, including junior colleges.

The committee will approach the problem from the point of view of effective educational practice, and with due consideration to the integration of high school, college, and university work so as to maintain the standards of degrees conferred in the Province.

It is unfortunate, during this initial stage of the new period of expansion in the Province, that the University cannot immediately increase its outturn of graduates. However, every effort is being made to extend educational services where there is demand for them. Members of Convocation are no doubt aware of the program of regular credit courses first offered in Edmonton under the Evening Division in 1952-3. The response was gratifying, and this year the program has been extended to include Calgary and Lethbridge. In the latter city the number registering was sufficient to justify offering classes in History and Household Economics. The University is pleased to have this opportunity to extend its work in the south of the Province.

In addition to the Edmonton evening courses for credit, the Extension Department is also offering in the fall term twelve non-credit evening classes. The total registration in these courses is 360. A new course in Petroleum Law has 70 students enrolled in it.

This Convocation is associated with two events of importance in the development of the University.

Later in the ceremony the first candidate for the degree of Doctor of Philosophy will be presented to the Chancellor by the Director of the School of Graduate Studies. It is a source of satisfaction that departments in the University can, through the reputation of their members and the facilities available to them, attract a number of scholars and research workers who wish to obtain advanced degrees from this institution.

Through the presentation of honorary degrees to four distinguished representatives of the engineering profession, this Convocation is associated with the official opening of the new Engineering Building, which took place last evening. With the increase in registrations in the Faculty of Engineering, the additional facilities are very welcome, and provide some temporary relief to pressures which are developing in other parts of the University organization. I am pleased to report, too, that excellent progress is being made with the new Agriculture Building, which will grace the north end of the campus.

Report of the President to Convocation

May 14, 1954

It has been customary for the President to present at Convocation his report which, along with the reports from the Faculties and Departments, is later incorporated in the printed Report of the Board of Governors. This has presented a problem. Whereas the published report can reasonably be of some length, the report to Convocation should, in the nature of the occasion, be short.

You will not, I am sure, quarrel with the decision that the President's report to Convocation should be made as short as possible, so as not unduly to delay or interfere with the later and more important parts of the ceremony.

I am gratified to be able to report another satisfactory year, characterized by: an increased student body, which continued the tradition of successful student self-government in those matters under their jurisdiction; continued efforts by a loyal staff, in the classroom, in Committees, and in Councils, to maintain the academic standards of the institution; the pursuit of valuable research projects in a great variety of fields; the provision of additional needed physical facilities.

It has been customary in the President's report to Convocation to refer to the retiring members of the academic staff. There is special reason why this portion of the report should not be passed over lightly on this occasion.

This year four members of the staff, each with more than thirty years of service, retire from active duty. They are: Professor J. W. Campbell, Mathematics; Professor K. A. Clark, Mining and Metallurgy; Professor I. B. Morrison, Civil Engineering; Professor E. H. Strickland, Entomology.

The contribution of the faithful teacher is beyond measure, and no one can compute the consequences in enriched lives which flow from thirty years of dedicated service. To Professors Campbell, Clark, Morrison and Strickland we express our profound gratitude and our warm good wishes.

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements, resignations; gifts; new scholarships, prizes and medals; staff publications; student registration; and reports of administrative officers.

Table I—Academic Staff Numbers

Administrative Officers

President	1
Assistant to the President	1
Deans of Faculties	7
Directors of Schools	5
Director of the Calgary Branch	1
Assistant Director of the Calgary Branch	1
Director of the Summer Session	1
Provost	1
Assistant Provost, Calgary Branch	1

Director of Student Advisory Services	1	
Dean of Women	1	
Librarian	1	
Superintendent of the University Hospital	1	
Registrar	1	
Assistant Registrar	2	
Alumni Secretary	1	
Bursar	1	
Accountant	1	
Assistant Accountant	1	
Purchasing Agent	1	
Wardens of Residence Halls	3	
	—	34
<i>Full-Time Teaching Staff</i>		
Professors	55	
Associate Professors	61	
Assistant Professors	76	
Lecturers	30	
Instructors	6	
	—	228
On leave of absence:		
Professors	3	
Associate Professors	3	
Assistant Professors	4	
Lecturers	4	
<i>Part-Time Teaching Staff</i>		
Professors	6	
Associate Professors	10	
Clinical Professors	8	
Assistant Professors	8	
Associate Clinical Professors	4	
Assistant Clinical Professors	1	
Lecturers	55	
Instructors	95	
Demonstrators in the Faculty of Education	184	
Demonstrators and Student Assistants	165	
	—	536
<i>Department of Extension</i>		
Director	1	
Assistant Professors	2	
Agricultural Secretary	1	
Supervisor of Visual Instruction	1	
Librarian	1	
	—	6
<i>Library</i>		
Librarian	1	
Assistant Librarians	9	
Assistants	7	
	—	17

Industrial Laboratories

Director and Provincial Analyst	1	
Assistant	1	
	—	2

Provincial Laboratory of Public Health

Provincial Bacteriologist and Director, Edmonton	1	
Director, Calgary	1	
Provincial Pathologist	1	
Assistants	3	
	—	6

Other Staff

Dietitians	3	
Radio Secretary	1	
	—	4
Total		833
Less duplicates		38

Total Academic Staff 795

Table II—Academic Staff Appointments and Promotions

Faculty of Agriculture

Donald Robert Clandinin, M.S.A., Ph.D., from Associate Professor to Professor of Poultry Husbandry.
Robert James Hilton, B.Sc., Ph.D., from Associate Professor to Professor of Horticulture.
John Alfred Toogood, B.Sc., Ph.D., from Assistant to Associate Professor of Soils.
Clayton Oscar Person, M.A., P.A., Assistant Professor of Cytology.
Robert Hironaka, M.Sc., Lecturer in Animal Science.
Brian Hocking, B.Sc., M.Sc., Ph.D., A.R.C.Sc., from Associate Professor to Professor of Entomology.
Robert Hugh Knowles, B.S.A., from Assistant to Associate Professor of Horticulture.
Roy Torgny Berg, B.Sc., from Lecturer to Assistant Professor of Animal Husbandry.

Faculty of Arts and Science

Matthew Henry Scargill, B.A., Ph.D., from Assistant to Associate Professor of English.
Victor Ernest Graham, B.A., M.A., Ph.D., from Assistant to Associate Professor of French.
Eric John Hanson, B.A., M.A., Ph.D., from Assistant to Associate Professor of Economics.
Kenneth Bateman Newbound, B.Sc., M.Sc., Ph.D., from Assistant to Associate Professor of Physics.
Eunice Robertson, B.Ed., Lecturer in English.
Thomas Moore Wilson, M.Sc., Sessional Lecturer in Physics.
John Thomas Jones, M.A., Chairman of the Department of English.
Andrew Thomson Elder, B.A., M.A., from Lecturer to Assistant Professor of English.

Denis Rowley Godfrey, B.A., Ph.D., from Lecturer to Assistant Professor of English.
 Arthur Bligh Crighton, Mus. Bac., from Lecturer to Assistant Professor of Music.
 George Samuel, M.A., from Lecturer to Assistant Professor of French.
 Gordon Fraser Sleigh, M.A., B.Litt., Lecturer in English.
 Earl Frederick Guy, M.A., Lecturer in English.
 Terence Michael Penelhum, M.A., B.Phil., Lecturer in Philosophy.
 Grant Robert Davy, B.A., M.A., from Lecturer to Assistant Professor of Political Economy.
 William Clare Wonders, B.A., M.A., Ph.D., Assistant Professor of Geography.
 George Ferno MacDowell, B.A., Sessional Lecturer in Political Economy.
 John Garner, M.A., Sessional Lecturer in Political Economy.
 Gordon Peacock, B.Ed., M.F.A., Lecturer in Drama.
 H. Grant Sampson, B.A., A.Mus., Extension Lecturer in Music.
 Adelle Roginsky, B.S., Ph.D., Sessional Instructor in Chemistry.
 William Neil McKay, B.Sc., Sessional Instructor in Chemistry.
 Monique Chainet, Licence es Lettres, Reader in French.
 Allan Robert Godfrey, Sessional Instructor in English.
 John Ralph Nursall, M.S., Ph.D., Lecturer in Zoology.
 Harry Schiff, M.Sc., Ph.D., Lecturer in Physics.
 Peter Michael Dranchuk, B.Sc., Lecturer in Petroleum Engineering.
 Edgar Williams, Sessional Instructor in Music.
 Heinz Helfenstein, M.Sc., Ph.D., Sessional Instructor in Mathematics.
 Marguerite Primeau, M.A., Sessional Instructor in French.
 Edward Joseph Hollingworth Greene, M.A., Docteur de l'Université de Paris, Head of the Department of Modern Languages.
 Ernest Sydney Keeping, B.Sc., A.R.C.S., D.I.C., Head of the Department of Mathematics.
 James Edward Moore, B.A., M.A., Ph.D., from Assistant to Associate Professor of Zoology.
 Robert Karl Brown, M.Sc., Ph.D., from Assistant to Associate Professor of Chemistry.
 Walter Edgar Harris, M.Sc., Ph.D., from Assistant to Associate Professor of Chemistry.
 Manoel Faucher, L. en Droit, M.A., from Assistant to Associate Professor of French.
 Willard Finlay Allen, B.Sc., M.A., Ph.D., from Assistant to Associate Professor of Chemistry.
 Charles Richard Stelck, B.Sc., M.Sc., Ph.D., from Assistant to Associate Professor of Geology.
 Frank Donald Blackley, M.A., Ph.D., from Assistant to Associate Professor of History.
 Lorene Louise Kennedy, B.Sc., M.Sc., from Lecturer to Assistant Professor of Botany.
 Orest Starchuk, D.Jur. et. Rer. Pol., from Lecturer to Assistant Professor of Russian.
 Robert George Baldwin, B.A., M.A., from Lecturer to Assistant Professor of English.
 Esther Nelson, from Lecturer to Assistant Professor of Drama.

Conrad Percival Gravenor, B.A., M.S., Ph.D., from Lecturer to Assistant Professor of Geology.

Ernest Reinhold, B.Sc., M.A., from Lecturer to Assistant Professor of German.

School of Household Economics

Grace Leslie Duggan, B.Sc., B.Ed., M.S., from Assistant to Associate Professor of Household Economics.

Faculty of Dentistry

Robert Stacey Van Alstine, D.D.S., M.S., Assistant Professor of Oral Surgery.
William Orobko, B.Sc., D.D.S., from Assistant to Associate Professor of Dentistry.

George Archibald Brass, D.D.S., B.S.D., from Assistant to Associate Professor of Dentistry.

Robert Henry Blaquiere, D.D.S., from Lecturer to Assistant Professor of Operative Dentistry.

Alan Douglas Fee, D.D.S., from Lecturer to Assistant Professor of Prosthetic Dentistry.

Faculty of Education

John William Gilles, M.A., M.Ed., Ed.D., from Associate Professor to Professor of Education.

Robert Ellsworth Rees, B.A., B.Ed., Ph.D., from Assistant to Associate Professor of Education.

Stanley Charles Tremayne Clarke, M.A., M.Ed., Ed.D., from Assistant to Associate Professor of Education.

Earl William Buxton, B.A., B.Ed., from Assistant to Associate Professor of Education.

Gertrude Cornelia Higgin, B.A., L.R.S.M., from Assistant to Associate Professor of Education.

Harold Clarence Melsness, B.Sc., from Assistant to Associate Professor of Education.

John Douglas Aikenhead, B.Sc., M.A., from Assistant to Associate Professor of Education.

Dorothy Lampard, B.A., M.A., from Lecturer to Assistant Professor of Education.

Cyril G. Hampson, B.A., from Lecturer to Assistant Professor of Education.

John Allison Forbes, M.Ed., from Lecturer to Assistant Professor of Education.

Muriel Adeline Caldwell, B.Ed., from Lecturer to Assistant Professor of Education.

Howard Byron Barnett, A.R.C.T., B.A., Mus.Bac., from Lecturer to Assistant Professor of Education.

Jean Keeley, Sessional Instructor in Education.

Margaret O. Cogswell, B.A., R.N., Assistant Professor of Education.

Faculty of Engineering

George Ford, M.Sc., Ph.D., from Assistant to Associate Professor of Applied Mechanics.

Ralph Norman McManus, M.Sc., Ph.D., from Assistant to Associate Professor of Civil Engineering.

Thomas Patching, B.Sc., from Assistant to Associate Professor of Mining and Metallurgy.

Jack Longworth, B.Sc., M.Sc., from Lecturer to Assistant Professor of Applied Mechanics.

Allan W. Peterson, B.Sc., Instructor in Civil Engineering.

Walter Morley Balke, B.Sc., Sessional Lecturer in Electrical Engineering.

W. J. Beard, B.Sc., Sessional Instructor in Mining Engineering.

D. H. Pollock, B.Sc., Sessional Instructor in Civil Engineering.

Victor Marcus Appelt, B.Sc., Sessional Instructor in Civil Engineering.

Thomas Blench, B.Sc., M.I.C.E., from Associate Professor to Professor of Civil Engineering.

Ronald Edward Phillips, B.Sc., from Assistant to Associate Professor of Electrical Engineering.

Donald Baker Robinson, B.Sc., M.S., Ph.D., from Assistant to Associate Professor of Chemical Engineering.

Faculty of Law

George William Reed, B.A., LL.B., from Assistant to Associate Professor of Law.

J. H. Laycraft, B.A., LL.B., Sessional Instructor in Commercial Law.

Francis Russell Dunn, B.A., LL.B., Sessional Instructor in Law.

Cameron Steer, B.A., LL.B., Sessional Instructor in Law.

Faculty of Medicine

Guy Kent Morton, M.D., from Lecturer to Assistant Clinical Professor of Neurosurgery.

William Alexander Shandro, M.D., C.M., F.R.C.S.(C), from Instructor to Lecturer in Clinical Surgery.

Thomas Sidney Wilson, B.Sc., M.D., F.R.C.S.(C), from Lecturer to Assistant Clinical Professor of Surgery.

Allan G. Stewart, M.A., Ph.D., Assistant Professor of Biochemistry.

Kathleen Swallow, B.Sc., M.D., Sessional Instructor in Paediatrics.

Charles Russell Amies, M.B., B.S., M.D., M.R.C.S., Associate Professor of Bacteriology.

Robert Alexander Macbeth, B.A., M.D., M.Sc., F.R.C.S.(C), Sessional Instructor in Clinical Surgery.

James Francis Elliott, B.A., M.D., F.R.C.P.(C), F.A.C.P., from Assistant Clinical Professor to Clinical Professor of Medicine.

Paul Louis Rentiers, B.A., M.D., M.Sc., from Instructor to Lecturer in Dermatology.

Hector Ewart Duggan, M.D., from Instructor to Lecturer in Radiology.

Patrick Hamilton Malcolmson, B.A., M.D., from Instructor to Lecturer in Radiology.

Sheila Lipsett, B.Sc., Instructor in Bacteriology.

Robert Stewart Fraser, B.Sc., M.D., M.Sc., Lecturer in Medicine.

Mary Eileen Spencer, B.A., M.A., Ph.D., Sessional Instructor in Biochemistry.

Robert Edward Bell, m.i.d., M.D., Sessional Instructor in Clinical Biochemistry.

Mitro Michael Sereda, M.D., Sessional Instructor in Clinical Medicine.

Donald Forbes Cameron, M.B.E., m.i.d., B.A., M.D., Sessional Instructor in Anaesthesiology.

Harvey Leslie Hogge, B.Sc., Sessional Instructor in Hygiene.
 Charles Frederick Hyndman, M.D., C.M., Sessional Instructor in Radiology.
 Stanley Greenhill, M.D., D.P.H., Sessional Instructor in Medicine.
 Jack Dean Taylor, M.Sc., Sessional Instructor in Biochemistry.
 John Hopkyns, M.A., A.M., B.Ch., M.R.C.P., Sessional Instructor in Medicine.
 Douglas Burrows Leitch, M.C., B.A., M.B., F.R.C.P.(C), Professor of Paediatrics.
 Walter Raymond Salt, M.Sc., from Assistant to Associate Professor of Anatomy.

School of Commerce

Francis George Winspear, F.C.A., LL.D., Director of the School of Commerce and Professor of Business Administration.

School of Pharmacy

Arthur James Anderson, B.Sc., M.S., from Lecturer to Assistant Professor of Pharmacy.
 Donald Ross Innes, B.Sc., Sessional Instructor in Pharmacy.
 Donald Clifford Hobbs, B.Sc., Sessional Instructor in Pharmacy.
 John Randolph Murray, M.Sc., from Assistant to Associate Professor of Pharmacy.
 Bernard Edward Riedel, M.Sc., Ph.D., from Assistant to Associate Professor of Pharmacy.

School of Nursing

Isabelle MacLean Reesor, B.Sc., M.A., R.N., from Lecturer to Assistant Professor of Nursing.

Department of Physical Education

William Donald Smith, B.P.H.E., M.A., from Assistant to Associate Professor of Physical Education.
 Margaret Visser, B.Ed., Instructor in Health and Physical Education.
 Luther Goodwin, B.A., B.Ed., M.Ed., from Assistant to Associate Professor of Physical Education.
 Evangeline Alberta Hastie, B.A., from Assistant to Associate Professor of Health and Physical Education.

Other Appointments

Aylmer Arthur Ryan, M.A., Provost.
 Harold Richard Hawes, B.A., Assistant to the Registrar.
 Charles Emerson Noble, B.A., B.Sc., Provincial Analyst.
 Lois J. Carrier, B.A., B.L.S., Library Assistant.

Table III—Leave of Absence

Henry Kreisel, M.A., Ph.D., Assistant Professor of English.
 Thomas Frank Wise, M.A., Lecturer in Political Economy.
 Ernest Reinhold, B.Sc., M.A., Lecturer in German.
 Henry Bertram Mayo, M.A., D.Phil., Professor of Political Science.
 Frank James Hastie, B.Sc., Associate Professor of Electrical and Mechanical Engineering.
 Robert Henslow Graham Orchard, M.A., Assistant Professor of Drama.

Table IV—Retirements

James A. Kelso, M.Sc., Provincial Analyst and Director of the Industrial Laboratory.

Table V—Resignations

James Douglas McLean, D.D.S., Associate Professor of Prosthetic Dentistry.
John Edgar Dutton, B.A., B.L.S., Library Assistant.
Andrew Royden Thompson, LL.B., Assistant Professor of Law.
Dorothy R. Colquhoun, B.A., R.N., Instructor in Nursing Education.
Stewart Clare, B.A., M.S., Ph.D., Assistant Professor of Zoology.
Rae Chittick, R.N., B.Sc., M.A., Associate Professor of Education.
Martin Louis Adamson, B.Ed., Supervisor of Visual Instruction.
Dennis McNeice Healy, M.B.E., B.A., Docteur de l'Université de Paris, Professor of French.
Joan Dafoe, B.A., B.L.S., Library Assistant.
Lloyd Muir Smith, B.Sc., M.Sc., Assistant Professor of Dairying.

Table VI—Gifts

From the National Research Council, \$61,827.82 in accountable advances for research under the direction of the following staff members: T. Blench, \$4,000; R. K. Brown, \$900; H. Grayson-Smith, \$600; J. L. Morrison, \$625; R. C. Harrison, \$359.10; A. B. McCarten, \$2,000; R. F. Shaner, \$2,900; J. Tuba, \$4,650; T. J. Speakman, \$1,100; D. R. Wilson, \$375; E. O. Lilge, \$13,820.37; C. F. Bentley, \$600; J. P. Bowland, \$2,120; D. R. Clandinin, \$1,000; W. G. Corns, \$2,562.33; E. H. Gowan, \$1,050; W. E. Harris, \$1,200; A. W. Henry, \$2,350; R. J. Hilton, \$1,432.27; H. R. MacLean, \$1,140; A. G. McCalla, \$2,635; J. D. Newton, \$2,400; A. R. Robb-lee, \$1,055; W. Rowan, \$900; L. M. Smith, \$1,400; J. A. Toogood, \$1,180; J. Unrau, \$4,295; O. J. Walker, \$1,045; S. Zalik, \$1,800.

From the Defence Research Board, grants for work under the direction of the following staff members: B. Hocking, \$200; W. C. Stewart, \$1,400; E. O. Hohn, \$1,500; H. B. Collier, \$2,000; J. H. Harrold, \$500; F. W. Wood, \$1,150.

From the Line Elevator Farm Service, \$750 for Winter Wheat research.

From the Alberta Division, Canadian Cancer Society, \$23,950.

From the National Cancer Institute of Canada, grants for research under the direction of the following: R. K. Brown, \$1,464.53; H. E. Rawlinson, \$600; R. B. Sandin, \$2,925; J. S. Thompson, \$789.44; J. Tuba, \$3,194; A. G. Stewart, \$1,500.

From the Edmonton Bird Club, \$396.25 to the Frank Farley Bird Book Fund.

From the Alberta Tuberculosis Association, \$50 for books.

From G. D. Searle & Co., \$300 for research under Dr. W. D. Mackenzie.

From the Alberta Seed Growers' Co-operative Ltd., \$1,000 for study and research on soil inoculant.

From Mr. and Mrs. John Stanley McKay, \$1,000 to be used for surgical research in heart diseases under the direction of Dr. W. C. Whiteside.

From the Alberta Drama League to the Studio Theatre, \$75.

From the Federal Department of Agriculture, a grant of \$300 to R. J. Hilton for co-operative vegetable trials.

From Dr. C. R. Stelck, a set of Russian geological memoirs for the Library.

From the Senior Class of 1953, \$110 for a display case in the Library.

From Mr. George Encil, as a memorial to his mother, a Steinway concert grand for the Banff School of Fine Arts.

From Rule, Wynn & Rule, \$3,500 to the Banff School of Fine Arts.

From the Brown Boveri Co., a voltage regulator.
 From Mr. Claude Gallinger, two steers.
 From the Edmonton Civic Employees' Welfare Chest Fund, \$5,000 for research in the John S. McEachern Cancer Research Laboratory.
 From the Upjohn Company, \$3,000 for research in the Department of Plant Science.
 From the Federal Department of Agriculture, \$2,015 for research under Dr. W. G. Corns.
 From the Dominion Engineering Company, a model Francis water turbine runner.
 From the British Insulated Callender's Cables Ltd., three KVA power factor corrector condensers.
 From the Interprovincial Pipe Line Company, \$300 for equipment.
 From the St. John's Ukrainian Orthodox Church, \$25 for Ukrainian books.
 From the Foothills Local of the Alberta Teachers' Association, \$15 for research in the Faculty of Education.
 From Canadian Cancer Society, Alberta Division, \$1,000 for research under R. B. Sandin.
 From United Grain Growers, \$500 for oil seed research in the Department of Plant Science.
 From Friends of the University, \$1,425 from fifty persons.

Table VII—New Scholarships and Prizes

To the Banff School of Fine Arts Scholarship Fund from Canadian Association of Broadcasters, \$200; Eric L. Harvie, \$100; G. Encil, \$200; J. R. Gilley, \$5; Mrs. Bruchna, \$40; George Noble, \$50; Calgary Broadcasting Company, \$100; Kiwanis Music Festival Committee, Guelph, \$100.

From an anonymous donor, \$1,670 to establish a trust fund for a prize in honor of Miss Florence Dodd.

From the Creamery Industry Supply Ltd., a prize of \$25 to the gold medalist in the Diploma Course in Dairying.

From the Dairy Supplies Ltd., a prize of a watch to the student of the Diploma Course in Dairying standing highest in practical work.

From the Alberta Oil Tool Co. Ltd., \$300 for deserving students who need financial aid.

From an anonymous donor, \$100 for a needy student.

From Miss Clare M. McKinlay, \$35 for the James McNish Chalmers Prize in Mathematics.

From Dr. H. Baden Powell, \$50 to the Postgraduate Scholarship Fund in Dentistry.

From the Lieutenant Governor of Alberta, two gold medals for award to graduating students in the general B.A. and B.Sc. courses who have shown the highest distinction in scholarship.

Table VIII—Staff Publications

Department of Anatomy

Harris, R. H. D. Commercial fisheries in the Great Slave Lake. Publication 7 of the Fisheries Research Board of Canada.

Salt, W. R. The structure of the cloacal protuberance of the vesper sparrow and certain other passerine birds. *The Auk*, 71:64-73.

Department of Animal Science

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Table IX—Student Registration

	CIVILIAN			REHABILITATION			TOTALS		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	52-53	53-54	52-53 53-54	52-53	53-54	52-53 53-54	52-53	53-54	52-53 53-54
TOTAL REGISTRATION									
Full Session, Summer Session, Evening Division and Short Courses.....	...	...	...	...	...	...	...	...	...
3001 3221 2807 2860 5808 6081									
Add Cancellations:									
Winter Session	130	98							
Summer Session	144	128							
6082 6307									
1. Arts and Science									
Edmonton									
B.A.....	94	124	194	244			96	127	100
B.Sc.....	295	303	367	374			301	308	71
B.A., B.Com.....	5	...	5	...	...	...	5	...	...
B.A., B.Sc.Eng.....	1	2	1	2	...	...	1	2	...
B.A., LL.B.....	48	53	50	55			50	55	2
Pre-dental.....	19	16	19	16			21	18	21
Diploma in Art.....	...	...	2	2			...	...	2
462 498 174 195 636 693							474	510	175
13 12							19	8	9
6 4							10	8	8
Partials, regular									
Partials, Evening Division.....	...	...	...	...	...	...	...	...	...
Calgary									
B.A.....	8	10	4	11	14		8	10	3
B.Sc.....	16	17	5	27	22		16	17	11
B.A., LL.B.....	2	5	1	2	6		3	5	1
B.A., B.Sc.Eng.....	1	...	...	1	...		1	...	...
Pre-dental.....	4	1	...	4	1		4	1	...
31 33 14 10 45 43							32	33	14
7 7 4 5 11 5							7	1	4
493 531 188 205 681 736							506	543	189
13 12							...	...	...
4 4							89	87	1
1 1							2	1	...
2. Agriculture									
Partials.....	...	...	...	...	...	...	...	...	...
3. Commerce									
Edmonton									
Partials.....	92	91	16	14	108	105	93	93	16
Evening Division.....	1	2	...	...	1	2	3	4	...
Calgary	2	1	...	...	2	1	2	3	...
Commerce	...	11	...	...	...	11	...	11	...
Evening Division.....	2	2	...	...	2	2	6	6	...
Commerce, full time.....	...	102	...	14	...	116	...	104	...
2 2							...	...	...
14							14	...	...
118							...	...	...

	98	104	3	2	101	106	22	12	...	22	12	120	116	3	2	123	118
4. Dentistry																	
5. Education																	
Edmonton																	
B.Ed., four-year	119	140	243	274	362	414	9	9	...	1	9	10	149	243	275	371	424
B.Ed. in Ind. Arts	2	1	...	...	2	1	...	1	...	...	...	2	2	...	...	2	2
B.Ed. after B.A., B.Sc., etc.	4	10	11	5	15	15	2	4	...	1	...	5	14	11	6	17	20
B.Ed. in Phys. Ed.	24	22	23	19	47	41	2	...	...	...	...	...	26	23	19	49	41
Temporary License	30	31	148	150	178	181	...	...	...	...	...	...	30	148	150	178	181
Edmonton, full time	179	204	425	448	604	652	13	14	...	2	13	16	192	425	450	617	668
Partials, regular	14	24	30	39	44	63	5	4	1	...	6	4	17	30	39	48	67
Partials, Evening Division	13	15	39	31	52	46	4	...	1	2	5	2	17	40	33	57	48
Calgary																	
B.Ed., four-year	23	26	70	65	93	91	...	...	...	...	...	...	23	70	65	93	91
B.Ed. in Ind. Arts	20	18	...	1	20	19	1	...	...	...	1	...	21	...	1	21	19
B.Ed. after B.A., B.Sc., etc.	...	1	1	3	1	4	1	...	...	...	1	...	1	1	3	2	4
Temporary License	12	22	82	69	94	91	1	1	...	...	1	1	13	82	69	95	92
Calgary, full time	55	67	153	138	208	205	3	1	...	...	3	1	58	153	138	211	206
Partials, regular	13	15	25	40	38	55	4	6	...	...	4	6	17	25	40	42	61
Specials	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	1	...
Partials, Evening Division	...	3	...	5	...	8	...	...	...	...	...	...	...	...	5	...	8
Lethbridge																	
Partials, Evening Division	...	3	...	31	...	34	...	3	...	1	...	4	...	...	32	...	38
Education, full time	234	271	578	586	812	857	16	15	...	2	16	17	250	578	588	828	874
6. Engineering																	
Civil	140	160	...	...	140	160	7	6	...	...	7	6	147	...	...	147	166
Chemical	77	119	...	1	77	120	...	1	...	...	...	1	77	...	1	77	121
Electrical	59	91	...	...	59	91	5	3	...	...	5	3	64	...	...	64	94
Mining	23	27	...	...	23	27	1	...	...	...	1	...	24	...	...	24	27
Petroleum	72	56	...	...	72	56	3	2	...	...	3	2	75	...	...	75	58
Irrigation	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Engineering Physics	2	2	...	...	2	2	...	...	...	...	...	2	2	...	...	2	2
Engineering Geology	2	3	...	...	2	3	...	...	...	...	...	...	2	...	...	2	3
Not specified	98	126	...	...	98	126	1	...	...	...	1	...	99	...	...	99	126
Full time	473	585	...	1	473	586	17	12	...	...	17	12	490	...	1	490	598
Partials	2	2	...	...	2	2	1	2	...	...	1	2	3	...	...	3	4
7. Household Economics																	
B.Sc., H.Ec.	...	...	67	67	67	67	...	...	...	...	...	...	...	67	67	67	67
B.H.Ec.	...	...	3	3	3	3	...	...	...	...	...	...	...	3	3	3	3
Partials	...	...	70	70	70	70	...	...	...	...	...	...	...	70	70	70	70
	...	...	...	1	...	1	...	...	...	...	...	...	...	...	1	...	1

Table IX—Student Registration—Continued

	CIVILIAN					REHABILITATION					TOTALS				
	Male		Female		Total	Male		Female		Total	Male		Female		Total
	52-53	53-54	52-53	53-54	53-54	52-53	53-54	52-53	53-54	53-54	52-53	53-54	52-53	53-54	53-54
8. Law.....	76	85	5	5	81	90	15	9	...	15	9	91	94	5	96
9. Medicine.....	183	208	15	13	198	221	27	10	3	30	10	210	218	18	228
B.Sc.....	...	...	...	...	...	...	...	1	...	...	1	...	1	...	...
Partials.....	183	208	15	13	198	221	27	11	3	30	11	210	219	18	228
	...	1	...	...	...	1	...	...	...	...	...	...	1	...	1
10. Nursing, Edmonton	...	...	103	100	103	100	...	...	...	...	...	...	...	103	100
B.Sc.....	...	...	194	214	194	214	...	...	...	...	...	...	...	194	214
Diploma.....	...	...	7	9	7	9	...	...	...	...	...	...	...	7	9
Dip. in Public Health.....	...	...	9	12	9	12	...	1	...	...	1	...	...	9	13
Dip. in Teach and Sup.....	...	...	313	335	313	335	...	...	1	...	1	...	...	313	336
11. Pharmacy	80	91	17	25	97	116	3	1	...	3	1	83	92	17	100
B.Sc.....	2	3	...	...	2	3	2	1	...	2	1	4	4	...	4
Partials.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. Graduate Studies	18	16	4	6	22	22	15	13	1	16	14	33	29	5	38
M.A.....	20	23	3	2	23	25	3	1	...	3	1	23	24	3	26
M.Sc. (Arts).....	8	7	...	...	8	7	9	3	...	9	3	17	10	...	17
M.Sc. (Agric.).....	10	9	...	...	10	9	2	4	...	2	4	12	13	...	12
M.Sc. (Engin.).....	2	4	1	2	3	6	3	1	...	3	1	5	5	...	6
M.Sc. (Pharm.).....	12	9	5	10	17	19	10	7	...	10	7	22	16	5	27
M.Sc. (Med.).....	5	9	...	...	5	9	3	2	...	3	2	8	11	...	11
Ph.D.....	12	11	...	...	12	11	5	3	...	5	3	17	14	...	17
B.D.....	23	25	12	3	35	28	9	8	...	9	8	32	33	12	44
Special Grad.....	110	115	25	23	135	138	59	42	1	60	43	169	157	26	195
	8	4	...	1	8	5	5	1	...	5	1	13	5	...	13
	...	1	...	...	...	1	1	...	...	1	...	1	1	...	1
Evening Division, M.Ed.....	1932	2175	1231	1283	3163	3458	183	120	5	4	188	2115	2295	1236	3351
Special Grad.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total full-time students.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13. Auditors	2	1	2	1	4	2	1	...	...	1	...	3	1	2	5
Regular.....	7	6	8	6	15	12	1	5	...	1	...	8	11	8	16
Evening Division.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

14. Partials, regular..... Evening Div., Edmonton..... Evening Div., Calgary..... Evening Div., Lethbridge.....	54	53	68	90	122	143	24	19	1	1	25	20	74	72	69	91	143	163
	21	25	46	41	67	66	4	7	2	4	6	11	29	32	48	45	77	77
	...	...	...	5	...	10	...	4	...	...	...	4	...	9	...	5	...	14
	...	3	...	31	...	34	...	3	...	1	...	4	...	6	...	32	...	38
15. Specials, regular..... Evening Div., Edmonton..... Specials, Calgary..... Evening Div., Calgary..... Evening Div., Lethbridge.....	6	13	2	3	8	16	5	4	...	...	5	4	11	17	2	3	13	20
	1	...	1	1	2	1	...	1	1	...	1	1	1	1	2	1	3	2
	...	2	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	2
	...	1	...	2	...	3	...	...	...	...	...	...	...	1	...	2	...	3
II. Summer Session	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1
	2023	2284	1358	1464	3381	3748	218	163	9	10	227	173	2241	2447	1367	1474	3608	3921
	542	609	983	963	1525	1572	134	46	9	4	143	50	676	655	991	967	1667	1622
	...	...	...	...	...	...	...	...	...	...	...	...	4	6	25	29	29	35
III. Short Courses	...	...	...	...	...	...	...	...	...	...	...	...	80	93	419	390	499	483
	...	...	...	...	...	...	...	...	...	...	...	...	760	754	1435	1386	2195	2140

Diploma in Dairying..... Adv. Practical Obstetrics.....	...	13	5	6	5	13	...	...	...	1	...	...	...	13	...	...	...	13
	...	...	...	...	...	6	...	...	...	...	...	1	...	7	5	...	5	7

Grand Totals		2906	2433	5339	209	15	224	3001	3221	2807	2860	5808	6081					

Table X—Distribution of Students According to Estimated Year of Graduation

1954	1041
1955	755
1956	1093
1957	609
1958	75
1959	2
1960	1
Not specified	345
	<hr/>
	3921
	<hr/>

Table XI—Distribution of Students According to Year of Birth, Sex, and Status as Rehabilitation or Civilian

AGE	CIVILIAN			REHABILITATION			GRAND TOTAL
	Male	Female	Total	Male	Female	Total	
15 .....	....	1	1	....	....	....	1
16	7	9	16	....	....	....	16
17	78	107	185	....	....	....	185
18	276	313	589	....	....	....	589
19	333	305	638	1	....	1	639
20	307	221	528	....	....	....	528
21	319	147	466	....	....	....	466
22	285	90	375	....	....	....	375
23	205	46	251	....	....	....	251
24	145	24	169	....	....	....	169
25	99	15	114	....	....	....	114
26	53	21	74	6	....	6	80
27	31	7	38	19	....	19	57
28	23	14	37	19	....	19	56
29	16	5	21	21	....	21	42
30	14	9	23	19	1	20	43
31	4	5	9	14	2	16	25
32	10	5	15	8	1	9	24
33	9	6	15	14	1	15	30
34	7	8	15	4	2	6	21
35	8	14	22	5	1	6	28
36	4	6	10	7	....	7	17
37	7	7	14	4	....	4	18
38 .....	....	10	10	4	....	4	14
39	4	5	9	2	....	2	11
40	2	5	7	3	....	3	10
41	3	10	13	....	....	....	13
42	6	6	12	3	1	4	16
43	2	4	6	2	....	2	8
44	6	6	12	1	....	1	13
45	3	8	11	....	....	....	11
46	4	6	10	1	....	1	11
47	2	2	4	....	1	1	5
48	1	3	4	1	....	1	5
49	1	3	4	....	....	....	4
50	3	2	5	....	....	....	5
51	2	3	5	....	....	....	5
53	2	2	4	2	....	2	6
54	1	....	1	2	....	2	3
55	1	....	1	....	....	....	1
57	1	....	1	1	....	1	2
58 .....	....	1	1	....	....	....	1
61 .....	....	1	1	....	....	....	1
63 .....	....	1	1	....	....	....	1
71 .....	....	1	1	....	....	....	1
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	2284	1464	3748	163	10	173	3921
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

Table XII—Distribution of Students According to Previous Attendance at the University

	CIVILIANS			VETERANS		
	Male	Female	Total	Male	Female	Total
Attended previous Winter Session.....	1364	644	2008	73	3	76
Attended previous Summer Session.....	77	113	190	16	3	19
Last attendance prior to 1952-53.....	133	123	256	46	1	47
Not previously in attendance.....	710	584	1294	28	3	31
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	2284	1464	3748	163	10	173
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

Table XIV—Distribution of Student Veterans According to Faculty or School and Year of Course

	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.	Totals
Arts and Science						
B.A.			2	1		3
B.Sc.	1	3	1			5
B.A., LL.B.		2				2
Pre-dental	2					2
Partials						11
Agriculture	2	1	1			4
Commerce	1	1				2
Partials						8
Dentistry	3	1	2	6		12
Education						
B.Ed., four-year course	2	6		2		10
B.Ed. in Industrial Arts				1		1
B.Ed. after B.A., etc.			1	4		5
Temporary License	1					1
Partials						16
Engineering						
Civil		1	2	3		6
Chemical				1		1
Electrical		1		2		3
Petroleum			1	1		2
Partials						2
Law	2	5	2			9
Medicine						
M.D.	2	1		7		10
B.Sc.						1
Nursing						
Diploma in Teaching and Supervision.....					1	1
Pharmacy		1				1
Partials						1
Graduate Studies						
M.A.						14
M.Sc. (in Arts).....						1
M.Sc. (in Agriculture).....						3
M.Sc. (in Engineering).....						4
M.Ed.						8
M.Sc. (in Medicine)						1
Ph.D.						2
Special Graduates						8
B.D.						3
Auditors						5
Special						5
TOTALS	16	23	12	28	1	173

Table XV—Registration of Students According to Religious Denomination

Anglican	464
Baptist	139
Christian Science	10
Church of Christ	3
Church of Nazarene	2
Greek Catholic	67
Greek Orthodox	171
Hebrew	86
Latter Day Saints	98
Lutheran	207
Presbyterian	137
Protestant (church not specified).....	55
Roman Catholic	648
Russian Orthodox	3
Seventh Day Adventist	2
Ukrainian Orthodox	24
United Church	1609
Others	196
	<hr/>
	3921
	<hr/>

Table XVI—Distribution of Students According to Birthplace of Father

A. <i>British Empire-Commonwealth</i>		
(a) Canada (not otherwise specified)	89	
Alberta: Edmonton	55	
Calgary	39	
Lethbridge	14	
Medicine Hat	7	
Red Deer	10	
Vegreville	6	
Wetaskiwin	13	
Camrose	1	
Cardston	15	
Others	208	
	—	368
Newfoundland	3	
Nova Scotia	91	
Prince Edward Island	31	
New Brunswick	43	
Quebec	91	
Ontario	536	
Manitoba	154	
Saskatchewan	90	
British Columbia	31	
Yukon and North West Territories	1	
	—	1528
(b) <i>Other Parts of the British Empire-Commonwealth</i>		
British Isles	707	
Dominions	7	
Crown Colonies	5	
	—	719
		2247
B. <i>Countries Outside the British Empire-Commonwealth</i>		
United States of America	506	
Poland and Czechoslovakia	209	
Russia and Ukraine	271	
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey)	43	
Scandinavian States (Sweden, Norway, Denmark; Iceland)	141	
Germany, Austria	161	
France	12	
Hungary	30	
China and Japan	64	
Others	95	
	—	1532
C. <i>Information not specified</i>		142
TOTAL		3921

**Table XVII—Distribution According to Home Address of FIRST-Year Students
Not Previously in Attendance**

HOME ADDRESS	ATTENDING EDMONTON	
Edmonton	310	
Red Deer	17	
Vegreville	8	
Wetaskiwin	7	
Camrose	8	
Others (on or north of Township 38)	357	
	<hr/>	
Edmonton and <i>north</i> of Township 38		707
		<hr/>
Calgary	56	
Lethbridge	25	
Medicine Hat	10	
Cardston	12	
Others	138	
	<hr/>	
<i>South</i> of Township 38		241
		<hr/>
<i>Other Provinces, etc.</i>		
Nova Scotia	1	
Prince Edward Island	1	
Quebec	3	
Ontario	3	
Manitoba	3	
Saskatchewan	39	
British Columbia	11	
Yukon and North West Territories	2	
	<hr/>	63
		<hr/>
<i>Countries Outside the British Empire-Commonwealth</i>		
United States of America	2	
Not specified	2	
	<hr/>	4
		<hr/>
	ATTENDING CALGARY	
Edmonton	1	
Red Deer	1	
	<hr/>	
Others (on or north of Township 38)	8	
	<hr/>	
Edmonton and <i>north</i> of Township 38		10
		<hr/>
Calgary	64	
Lethbridge	6	
Medicine Hat	2	
Cardston	1	
Others (<i>south</i> of Township 38)	86	
	<hr/>	159
		<hr/>
<i>Other Provinces</i>		
Saskatchewan	5	
British Columbia	2	
	<hr/>	7
		<hr/>

Table XVIII—Distribution of Students According to Home Address and Birthplace

A. British Empire-Commonwealth

(a) Canada (not otherwise specified)	1		5	
Alberta: Edmonton	1294		621	
Red Deer	50		39	
Vegreville	22		57	
Wetaskiwin	19		34	
Camrose	27		47	
Others (on or north of Twp. 38)	897		1231	
Calgary	528		390	
Lethbridge	109		127	
Medicine Hat	40		71	
Cardston	25		43	
Others (south of Township 38)	596		249	
	<hr/>	3608	<hr/>	2914
Newfoundland .....	.....		.....
Nova Scotia	2		13	
Prince Edward Island	2		5	
New Brunswick .....	.....		4	
Quebec	7		21	
Ontario	12		67	
Manitoba	22		102	
Saskatchewan	173		440	
British Columbia	60		99	
Yukon and North West Territories	7		2	
	<hr/>	3893	<hr/>	3667
(b) Other Parts of the British Empire-Commonwealth				
British Isles	2		64	
Dominions .....	.....		2	
Crown Colonies	3		3	
	<hr/>	5	<hr/>	69

B. Countries Outside the British Empire-Commonwealth

United States of America	9		44	
Poland and Czechoslovakia .....	.....		40	
Russia and Ukraine .....	.....		22	
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey) .....	.....		9	
Scandinavian States (Sweden, Norway, Denmark, Iceland)	1		9	
Germany, Austria	2		11	
France .....	.....		1	
Hungary .....	.....		5	
China and Japan .....	.....		4	
Others	5		32	
Not specified	6		8	
	<hr/>	23	<hr/>	185
		<hr/>	<hr/>	<hr/>
		3921		3921
		<hr/>		<hr/>

Table XIX—Distribution of Students According to Father's Occupation

Occupational Classification and Occupation		Number	Totals
A. Professional			
Accountants, auditors		49	
Dentists		18	
Doctors		63	
Lawyers		55	
Ministers		51	
Pharmacists, druggists		27	
Professors, teachers		124	
Engineers and land surveyors		56	
Others		20	
			463
B. Business and Finance			
Garage, service station managers		56	
Grain, oil, implement agents, livestock dealers		89	
Hotelkeepers, restaurateurs and employees		60	
Insurance, real estate, bond salesmen, stock-brokers		58	
Retail merchants, grocers, shopkeepers, clerks		229	
Bank employees		26	
Wholesale managers, clerks, warehousemen		45	
Salesmen, commercial travellers, manufacturers' agents		59	
Advertising		5	
Others		162	
			789
C. Industry			
Assayers, industrial chemists		3	
Bakers, brewers		14	
Dairy and creamery owners and employees		18	
Farmers, ranchers, dairy farmers, poultry farmers and market gardeners		962	
Contractors, builders		59	
Lumbermen, building supplies, etc.		31	
Manufacturers, factory foremen, employees, etc.		43	
Mine owners, managers and employees		97	
Transportation owners, managers and employees		155	
Others		54	
			1436
D. Artisans and Skilled Tradesmen			
Barbers, hairdressers		14	
Carpenters, masons, bricklayers, plasterers, floor finishers		85	
Electricians, radio repair, etc.		12	
Mechanics, locksmiths, gunsmiths, etc.		31	
Metal workers, welders, tinsmiths, blacksmiths		19	
Machinists, lathe operators		9	
Painters and decorators		12	
Plumbers, gas and steam-fitters		14	
Tailors, pressers, cleaners and dyers, shoemakers		12	
Others		64	
			272
E. Government Service			
Civic or municipal employees		43	
Provincial government employees		78	
Dominion government employees		73	
Armed services		6	
Members of Provincial and Dominion Parliament		3	
Judges and magistrates		9	
			212
F. Retired			
Deceased		296	
Not specified		413	
		40	
			749
TOTAL			3921

Table XX—Distribution of Students According to Pattern, Honors or Branch

Arts and Science Pattern—B.A.	1st Year		2nd Year		3rd Year		4th Year		Partials		Total	
	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54	52-53	53-54
	15	17	14	11	13	13	...	...	...	...	42	41
English	5	2	3	2	...	4	...	...	...	...	8	8
Music	5	5	...	...	...	...	...	...	...	...	4	...
Fine Arts	9	16	3	...	2	...	...	...	...	...	10	7
Foreign Language or Literature	22	42	7	13	3	9	...	...	...	...	19	38
History	10	13	26	15	18	23	...	...	...	...	66	80
Philosophy or Psychology	2	17	11	15	4	15	...	...	...	...	25	45
Political Economy	2	1	...	...	...	...	...	...	...	...	...	3
Art	3	...	1	2	2	...	...	...	...	...	3	5
Political Science .....	...	...	...	...	...	...	...	...	...	...	1	...
No pattern .....	...	...	...	...	1	...	...	...	...	...	...	...
Pattern—B.Sc.												
Chemistry	44	41	16	22	16	13	...	...	...	...	76	76
Mathematics	2	5	3	5	4	3	...	...	...	...	9	13
Physics	4	9	4	3	10	4	...	...	...	...	18	16
Geology	40	31	20	36	17	27	...	...	...	...	77	94
Entomology .....	...	1	4	1	2	2	...	...	...	...	6	4
Botany	1	...	1	...	...	...	...	...	...	...	...	...
Zoology	31	24	39	37	23	17	...	...	...	...	2	...
Special B.Sc. course	27	20	8	16	19	7	...	...	...	...	93	78
Experimental Psychology	1	8	1	1	1	2	...	...	...	...	54	43
No pattern	3	1	...	2	...	...	...	...	...	...	2	11
...	...	...	...	...	...	...	...	...	...	...	3	3
Honors												
Biochemistry .....	...	5	1	2	...	1	...	...	...	...	1	8
Chemistry	5	9	9	7	8	4	...	...	...	...	26	28
Classics .....	...	1	1	...	1	...	...	...	...	...	4	2
Conservation Biology .....	...	1	...	...	...	...	...	...	...	...	...	1
English	3	5	...	...	...	...	...	...	...	...	11	14
Geology .....	...	...	6	2	2	2	...	...	...	...	14	5
History .....	...	1	3	1	2	1	...	...	...	...	2	3
Mathematics	4	2	2	1	2	2	...	...	...	...	8	10
Modern Languages	2	2	4	2	1	3	...	...	...	...	7	6
Psychology .....	...	1	3	3	1	2	...	...	...	...	3	...
Physics	5	2	1	4	3	2	...	...	...	...	10	11
Business Administration .....	...	...	2	...	...	...	...	...	...	...	1	1
Political Economy .....	...	...	...	...	...	...	...	...	...	...	...	...
Engineering												
Civil .....	...	...	...	...	...	...	...	...	...	...	...	...
Chemical	*28	31	46	58	43	40	...	...	...	...	147	167
Electrical	*34	39	11	48	21	12	...	...	...	...	77	122
Mining	*18	29	19	31	17	16	...	...	...	...	64	94
Petroleum	*3	4	7	14	6	8	...	...	...	...	24	27
Irrigation	*27	14	18	16	12	16	...	...	...	...	76	58
Engineering Physics .....	...	...	...	...	...	1	...	...	...	...	...	1
Engineering Geology .....	...	...	...	...	...	2	...	...	...	...	2	2
Not specified	*1	2	...	...	...	1	...	...	...	...	3	3
...	*99	126	...	...	...	...	...	...	...	...	99	126
											491	600

*Indicates intention only. All first-year students in Engineering are registered in general course.

Table XXI—Students Attending Calgary Branch

	CIVILIAN						REHABILITATION						TOTALS					
	Male			Female			Male			Female			Male			Female		
	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total	52-53	53-54	Total
Arts and Science																		
B.A.	8	10	14	3	4	11	...	...	...	...	...	...	8	10	3	4	11	14
B.Sc.	16	17	22	11	5	27	...	...	...	...	...	...	16	17	11	5	27	22
B.A., LL.B.	2	5	6	...	1	2	...	...	1	...	...	...	3	5	...	1	3	6
B.A., B.Sc. Engin.	1	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	1	...
Pre-Dent.	4	1	1	...	...	4	...	...	...	...	...	...	4	1	...	...	4	1
Totals	31	33	43	14	10	45	...	...	1	...	...	...	32	33	14	10	46	43
Partials	7	...	5	4	5	11	...	1	...	...	...	...	7	1	4	5	11	6
Commerce, B.Com. .....	...	11	11	...	...	...	...	...	...	...	...	...	...	11	...	...	...	11
Education																		
B.Ed., four-year	23	26	91	70	65	93	...	...	...	...	...	...	23	26	70	65	93	91
B.Ed. in Industrial Arts	20	18	19	...	1	20	...	...	1	...	...	...	21	18	...	1	21	19
B.Ed. after B.A., B.Sc., etc. ....	...	1	4	1	3	1	...	...	1	...	...	...	1	1	1	3	2	4
Temporary License	12	22	91	82	69	94	...	1	...	...	...	...	13	23	82	69	95	92
Partials	55	82	205	153	138	208	...	3	...	...	...	...	58	68	153	138	211	206
	13	15	38	25	40	55	...	4	...	...	...	...	17	21	25	40	42	61
Special Students .....	...	2	2	...	...	...	...	1	...	...	...	...	1	2	...	...	1	2
TOTALS	106	128	302	196	193	321	...	9	8	...	...	...	115	136	196	193	311	329

Table XXII—Students Attending Evening Divisions

	CIVILIAN							REHABILITATION							TOTALS						
	Male			Female			Total	Male			Female			Total	Male			Female			Total
	52-53	53-54	54-55	52-53	53-54	54-55		52-53	53-54	54-55	52-53	53-54	54-55		52-53	53-54	54-55	52-53	53-54	54-55	
EDMONTON																					
Arts and Science																					
B.A.	3	3	9	6	9	12	9	2	4	1	1	1	3	5	5	7	10	12	17		
B.Sc.	3	1	3	1	3	1	3	1	1	1	1	1	1	1	4	1	1	4	1		
B.A., LL.B.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B.A. after B.Ed.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Commerce	6	4	7	9	13	13	13	4	4	1	2	5	6	10	8	11	18	19			
Education, B.Ed., four-year	2	1	39	31	52	46	46	4	2	1	2	5	2	2	3	40	33	2	3		
Graduate Studies	13	15	...	...	...	...	...	...	...	...	...	...	...	17	15	...	57	48			
M.Ed.	8	4	...	...	...	...	...	5	1	...	...	5	1	13	5	...	1	13	6		
Special Grad.	...	1	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	1	1		
Auditors	8	5	...	...	...	...	...	6	1	...	...	6	1	14	6	...	1	14	7		
Specials	7	2	8	4	15	6	1	1	4	...	...	1	4	8	6	8	4	16	10		
...	1	...	1	1	2	1	...	...	1	1	...	...	1	1	1	2	1	3	2		
TOTALS	37	27	55	46	92	73	15	12	3	4	18	16	52	39	58	50	110	79			
(NOTE: These figures do not include 10 students in 1952-53 and 16 students in 1953-54 also registered as regular students.)																					
CALGARY																					
Commerce, B.Com.	2	...	...	...	...	...	...	...	4	...	...	...	...	4	...	6	...	...	6		
Education, B.Ed., four-year	3	...	...	...	...	...	...	...	1	...	...	...	...	1	...	3	...	...	8		
Auditors	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	6		
Specials	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	3		
...		
TOTALS	10	...	...	...	...	...	...	...	5	...	...	...	...	5	...	15	...	...	23		
LETHBRIDGE																					
Education, B.Ed., four-year	3	...	...	...	...	...	...	...	3	...	1	...	...	4	...	6	...	...	38		
Auditors	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		
Specials	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		
TOTALS	3	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...

Report of Dean A. G. McCalla of the Faculty of Agriculture

The outstanding events of the current year are concerned with improved accommodation and the awarding of two advanced degrees.

The Agriculture Building will be near completion by the end of June and members of the staffs of the Departments of Animal Science, Plant Science, and Soils are looking forward to the new facilities that will be available for research and for classes in the fall. Adequate greenhouse space has now been assured and construction should start this summer. The Department of Dairying has much improved quarters in the South Laboratory.

At Fall Convocation, 1953, the first Ph.D. given by this University was awarded to Clayton Person, who carried out his work in the field of cytogenetics in the Department of Plant Science. Dr. Person did his earlier work at the University of Saskatchewan. This spring he was awarded a National Research Council Postdoctorate Overseas Fellowship and will do advanced work in Sweden. At Convocation in May, 1954, E. H. Strickland, who has been Professor of Entomology since 1922, will receive the D.Sc. degree. This is only the fourth such degree given by this University. Professor Strickland retires this summer.

Dr. C. F. Bentley of the Department of Soils returned in October after spending a year in Ceylon under the auspices of the Colombo Plan. Dr. L. P. V. Johnson returned from Syria in early January, where he was engaged for a year on work with the F.A.O.

The number of graduates remained the same as last year, but first-year registration was up. Employment opportunities still far exceed the number of graduating students.

Academic

Registration included 92 full-time and one partial undergraduates, 11 candidates for the M.Sc., seven for the Ph.D., and four special graduates. Among the graduate students are three from Great Britain, one from Holland, one from Switzerland, and one from Slovakia. Thirteen took their undergraduate work at other institutions.

There are only 19 in the graduating class, the smallest number since the late war years. Not only are there too few for the employment opportunities but some research programs are seriously handicapped for lack of good student assistants.

A successful Diploma Course, with a registration of 15, was given in the Department of Dairying.

Research

While research facilities will be greatly improved in the new building and with the expansion now being provided for the Department of Dairying and to be provided for Agricultural Engineering, the past year has seen a large amount of good research work carried on. As usual, financial assistance has been received from a large number of outside sources to supplement that provided by the University directly. The donors include many commercial and industrial firms and are far too numerous to list individually, but the major roles played by the National Research Council of Canada and the Canada Department of Agriculture must be specially acknowledged.

The Department of Agricultural Engineering has conducted tests on the uniformity of application of chemical sprays using a variety of equipment.

The Department of Animal Science has continued work on many of the projects mentioned in earlier reports. This year the Department took part in two co-operative projects sponsored by the Associate Committee on Animal Nutrition of the National Research Council of Canada. These projects, one with hogs and one with chicks, are designed to test the adequacy of the nutrient requirements for swine and poultry as set out in the 1953 revision of "Nutrient Allowances" published by the National Research Council, U.S.A.

While emphasis in the animal husbandry field is still necessarily on work with swine, some increase in research involving sheep and cattle has been possible. This includes studies on silage stored in pits and fed as the main roughage to fattening steers. Considerable time has been spent on methods of chemical analyses to be used in appraising the feeding value of such roughages.

Research in poultry husbandry has again emphasized nutrition, including studies with broilers and laying hens, and with young turkeys and breeding turkey hens. Studies have also included work on strains of chickens for producing broilers, radiant heating for brooding chicks, and a new method of inducing moult in laying hens.

The Department of Dairying developed an experimental continuous butter-making apparatus with a capacity of about 30 pounds per hour. So far as is known, this is the only machine of its kind, and it should be valuable in a wide variety of studies. Work on seasonal variation in butterfat color, and on the content of the major fatty acids of butter, was continued throughout the year. The studies on canned butter progressed to the pilot stage proposed by the industry.

The Department of Entomology carried on research on insect flight, on nutrition of the pale western cutworm, and on the development of louseproof clothing. Professor Strickland co-operated with the Department of Zoology by identifying some 3,630 insects constituting part of the food of Alberta amphibians.

Research in Plant Science covers many fields and only a few projects can be mentioned. Many of the projects receive generous support from outside sources.

A number of hormonal chemical growth regulators have been demonstrated to have effects on increasing the frost resistance of some plants at various stages of growth. Other projects with chemical sprays include studies of various herbicides and effects on yield and quality of root crops.

Research on oil-seed crops has been expanded both in the field and in the laboratory. The crops used include flax, rapeseed, and sunflowers.

Work on the use of antibiotics in control of plant diseases has been expanded to include studies of the effects on wheat stem rust. Compatibility studies with antibiotics and other chemicals have been continued with the objective of developing seed treatments that are non-toxic to man.

A new native-fruit testing station was established last summer in the Provincial Park at Crimson Lake, near Rocky Mountain House. It is planned to carry out selection and breeding work with native fruits such as blueberries and cranberries. The co-operative fruit-breeding project has now reached the

stage where some fruiting can be expected in 1954. An increasing number of flowers and shrubby ornamentals are under trial.

Genetic and cytogenetic studies using wheat and barley have been expanded and promise to yield valuable results. A stock of new breeding material is being developed and fundamental information is being obtained. Perhaps special mention should be made of the production of triploid barley plants on a scale not previously recorded.

The Department of Soils continued with the projects reviewed last year and expanded the work on hard-pan soils at Youngstown. The soil erosion plots at St. Albert continue to yield valuable results. The damage caused by the very severe storms in July last year was greater than previously recorded. At the peak of the worst storm, a record seven-tenths of an inch of rain was recorded in seven minutes. The number of intensity rain gauges in the province has been increased and over a period of years will yield valuable data. Studies with fertilizers and soil micro-organisms have been continued. A procedure for mechanical analysis of soil has been developed and will be recommended for general use.

Extension

Faculty members took part in many meetings, field days, and short courses. Radio addresses, personal interviews, and extension correspondence all continue to take considerable time.

The thirty-second Annual Feeders' Day again drew a large crowd. Field days were held at Breton and Youngstown by the Department of Soils and were well attended. The latter, in particular, was an important event because it brought together those who are interested in the proposed Reed Deer irrigation project and those who are concerned with the potential value of the soil under irrigation. The Annual Visitors' Day in the Department of Plant Science was cancelled since it came on the weekend of record rainfall. Staff members assisted at various schools for seed growers and at seed fairs.

In conclusion, it should be recorded that members of the staff of the faculty gave many hours of time to the working out of details in connection with the Agriculture Building.

Report of Dean Walter H. Johns of the Faculty of Arts and Science

I have the honour to present a report dealing with the Faculty of Arts and Science for the session 1953-54.

Registration, 1953-54 (exclusive of the Schools of Commerce and Household Economics)

The registration in the Faculty of Arts and Science was 748 as compared with 717 in the session 1952-53. In this total are included: B.A. 261; B.Sc. 401; B.A., LL.B. 63; Pre-Dent. 19; B.A., B.Sc.(Eng.) 2; Diploma in Art 2. Partials and Specials accounted for another 20 students, and there were 19 in the Evening Division, making a total of 787 full-time and part-time students in all.

Degrees

The following degrees were conferred during the year:

	October, 1953	May, 1954	Total
B.A.	12	64	76
B.Sc.	11	105	116
B.Com. ....	.....	31	31
B.Sc. in H.Ec.	3	15	18
B.H.Ec.	1	.....	1
	<hr/> 27	<hr/> 215	<hr/> 242
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

Progress During the Session

(a) *Standing Committee on Patterns*—The Faculty Council, in the November meeting, 1953, authorized the establishment of a standing committee on patterns for the purpose of carrying on a periodic study of the content of B.A. and B.Sc. patterns and bringing forward recommendations annually to the Council. This committee was set up in November, 1953, comprising six members under the chairmanship of Professor Douglas Smith.

(b) *Changes in Patterns and Honors Programs*—A number of changes in patterns and honors programs secured the approval of the Faculty throughout the year. Many of these were made necessary by the reduction in the Mathematics of Grade XII of the High School, but others, such as those in the fields of Modern Languages, Philosophy, and Psychology, were due to the continuing effort to improve the programs available to students.

A special committee of the Faculty brought forward a revised statement of the programs open to students and a revision of the statement on honors programs with a view to making the information clearer and more helpful. These revisions were approved by the Council of the Faculty and will appear in the University Calendar for the 1954-55 session.

(c) *New Courses*—A number of new courses were approved in the Departments of Political Economy, Modern Languages, Mathematics, Physics, and History. These included a new course in Intermediate Economic Analysis (Economics 60), French Prose and Poetry of the Late Nineteenth Century (French 61), a graduate course in Number Theory (Mathematics 110), two graduate courses in Physics—one on Theories of the Solid State (Physics 106) and the other on Advanced Thermodynamics and Statistical Mechanics (Physics 107), an undergraduate course in Astrophysics (Physics 58) dealing with stellar spectra and their interpretation, and finally a course on Revolutionary and Napoleonic France (History 106e). These courses provide evidence of the new interests and talents brought to the University by new members of the staff and of the efforts of the staff to provide instruction in new areas of study in the light of changing conditions.

(d) *Intermediate Diploma in Art*—In order to provide recognition of the successful completion of two years' study toward the Diploma in Art, approval was secured for the awarding of an Intermediate Diploma at that stage. This will permit students to proceed elsewhere at the end of two years if they wish to do so and yet possess a document certifying to the work done at this institution.

(e) *Leave of Absence and Sabbatical Leave*—Dr. H. B. Mayo of the Department of Political Economy was given leave of absence in order to serve as

Visiting Professor of Political Science at McGill University for the 1953-54 session. Mr. R. G. H. Orchard, Assistant Professor of Drama, held a fellowship in Europe during the session and has utilized it to study production in France, Italy and other European countries. Mr. Henry Kreisel of the Department of English continued his work towards the Doctoral Degree at the University of London, and Mr. Thomas Wise of the Department of Political Economy was granted leave to carry on graduate study in Economics at McGill. Mr. Martin C. Martin of the Department of Physics, Calgary Branch, obtained leave in order to come to Edmonton to study for the Ph.D. under Professor Grayson-Smith. Dr. Walter H. Johns, Dean of the Faculty, was granted leave of absence in February in order to carry out a tour of universities on the Pacific Coast. The cost of the tour was covered by a grant from the Carnegie Corporation of New York.

(f) *Resignations and New Appointments*—The Faculty lost two valued staff members in the resignation of Dr. D. M. Healy of the Department of Modern Languages and Dr. Robert T. Sharp of the Department of Physics.

Miss Marguerite Primeau was appointed as Sessional Lecturer to replace Dr. Healy, and Dr. Harry Schiff was named Lecturer to replace Dr. Sharp. In the Department of Political Economy, Mr. John Garner and Mr. George F. MacDowell replaced Dr. Mayo and Mr. Wise for the current session. Another addition to the department came in the appointment of Dr. William C. Wonders as Assistant Professor of Geography to begin the work of this new field here. One of our own graduates, Dr. Thomas Moore Wilson, replaced Mr. Martin as Sessional Lecturer in Physics, Calgary Branch. Two other sessional appointments were later confirmed as continuing members of the staff. These were Dr. Ralph Nursall of the Department of Zoology and Dr. Heinz Helfenstein of the Department of Mathematics.

Dr. K. B. Newbound, Associate Professor of Physics, was appointed Assistant to the Dean for one year from April 1, 1954, and Dr. D. B. Scott assumed the duties of Physicist at the Cancer Clinic on a part-time basis in addition to his work in the University's Department of Physics. Dr. Earl Frederick Guy was added to the Department of English (Calgary Branch), and Mr. Gordon Fraser Sleigh to its Edmonton division. Mr. Terence M. Penelhum was appointed Lecturer in Philosophy and Mr. H. Grant Simpson Extension Lecturer in Music.

Departmental Reports

Botany

All members of the Department continued their research programs throughout the year. Dr. E. H. Moss served in an advisory capacity with members of the Dominion Forest Service on a comprehensive study of Rocky Mountain pine forests. Dr. R. G. H. Cormack was Visiting Lecturer in Botany in the summer session of the University of British Columbia.

Chemistry

Registration in the Department of Chemistry continues to rise, increasing from 1,340 in 1952-53 to 1,445 in the current session. The number enrolled in honors and graduate study here is still not large, but there are at present a total of twenty-eight students from the University of Alberta carrying on graduate study elsewhere at a total of fourteen institutions in Canada and the United States. Members of the Department continue to carry on research and

to participate in the activities of professional societies. Dr. Sandin is studying cancer chemotherapy and cancer mechanism; Dr. Morrison is working chiefly on colloidal and surface chemistry, and Dr. Davis on the electrode potentials of dental alloys; Dr. Brown's studies in the field of organic chemistry include the reactivity of cellulose, the synthesis of indole derivatives, and a study of heterocyclic sulfur. Dr. Harris has three separate projects, including research on trace elements in rubber and the corrosion of iron by natural gas. Dr. Allen of the Calgary Branch is working on methods of determining small amounts of cobalt, and Dr. Walker, in spite of his heavy administrative load, is still actively supervising research on the ashing of organic materials containing fluorides.

Classics

Dr. W. G. Hardy continued his broadcasts over the CBC by another series of four talks during February and March on Greek Thought, while three radio plays written by him were carried on the network. Dr. May took part in two broadcasts over the University radio station, while Dr. Hardy and Dr. Johns each gave one talk on classical themes. Miss Mackenzie completed the requirements for the M.A. at Stanford University and was awarded the degree in June, 1953. Two graduates in Honors Classics have held scholarships in the American School of Archeology in Athens and have been carrying out studies throughout the Greek islands and the mainland in the past year.

English

Professor F. M. Salter brought honor to the University and to himself by delivering the Alexander Lectures in the University of Toronto in March of this year. His subject was *Mediaeval Drama in Chester*. He also had the distinction of acting as Chairman of Section 2 of the Royal Society of Canada. Three members of the Department, Professors Ryan, Elder, and Baldwin, carried on research on these for the degree of Ph.D. Mr. Ryan accepted an appointment as Provost of the University, while other members of the Department assisted in organizing short courses in English writing to be given under the auspices of the Department of Extension and in acting as judges in the novel-writing competition sponsored by the Imperial Order of the Daughters of the Empire. A. T. J. Cairns, a graduate student in the Department, won the I.O.D.E. Overseas Scholarship and plans to go to England in the fall to carry on his studies.

Fine Arts

Throughout the year the Department made excellent progress in organizing and expanding its activities, both intramural and extramural. The Diploma Course in Art was in its first year and fully justified its establishment by the increased interest it aroused and the standards it introduced. Enrolment in the University comprised 278 students in Painting, some for credit and some not. In the extension classes held in other centres throughout the province a total of over 300 students took part.

The Department assisted in a number of exhibitions in the Rutherford Gallery, the Arts Building, and the Studio Theatre, including sixteen shows by local artists, eight by community art groups, and four from the National Gallery. Dr. Hedley prepared reports of all these exhibitions for publication in *The Edmonton Journal*. In addition the Department sponsored, or assisted in sponsoring, a number of lectures and recitals by Ross Pratt, pianist; Robert

McFerrin, baritone; Eric Newton, art critic; Stella Mary Pearce, authority on stage design; Basil Spence, architect, and Professor Joseph Smith, elocutionist. The Division of Painting organized a series of twenty-four talks and panel discussions over the radio on "Art in Everyday Life".

The Music Division had another good year in the regular music courses, the extramural student activities, and extension work. The instrumental laboratories under Professor Crighton and Mr. Edgar Williams brought increasing interest and improvement in this part of teaching. Extension courses in Music Appreciation were held in Edmonton and Lethbridge, a course in choral leadership was held in Tofield, and a course in Ear Training and Sight Singing in Edmonton.

The Drama Division had its most active year to date with a greatly increased participation by University students. A total of ninety-five roles were filled by students in various plays, and six one-act plays were directed by students in the Drama Division. The Studio Theatre produced a total of five plays, of which one, "The Braggart Warrior", was double cast from the drama classes in acting and broke all attendance records at the theatre. Assistance was given to other drama groups in the city and a series of broadcasts on the work of the Studio Theatre was carried on the University radio station.

Professor Glyde, head of the Department of Fine Arts, was elected National President of the Canadian Federation of Artists and also represented Alberta on the Canadian Arts Council.

Geology

Members of the Department of Geology have carried on programs of active research in a wide variety of fields over the past year. Dr. Warren and Dr. Stelck have concentrated on studies in stratigraphy, Dr. Simpson on mapping areal geology in South Central B.C., Dr. Folinsbee in structural research in the outer foothills belt, and Dr. Gravenor in his studies of the geology of Ontario. The great interest in geology in Alberta has brought increasing numbers of students to the Department, and there are more applications for graduate study than can be accommodated. Last fall a field trip was held, and plans for repeating this type of instruction are being considered.

History

The Department, in addition to nine courses offered in the regular session, gave instruction in History 58 (Canadian History) and History 10 (European History) in the Evening Division. Professor Collins has completed a manuscript on *The Protestant Revolt of the Sixteenth Century* and the article on *Feudalism* for the new edition of the *Encyclopedia Americana*. Dr. Blackley has given a large number of lectures on a variety of topics to the United Nations School at Banff, to Extension groups at the University, the R.C.A.F. Squadron at the University, and the Army Current Affairs School, in addition to two talks on CKUA. Mr. Thomas has carried on his research in the early history of Alberta and the Canadian West, based on studies carried out in London during his sabbatical leave and on his researches in the province. He will deliver a paper on *English Missionary Records and the History of the Canadian West* at the Winnipeg meeting of the Canadian Historical Association.

Mathematics

The increase in the work of the Department of Mathematics is shown in part by the fact that it required the services of eleven full-time staff members

as compared with a normal complement of four before the war. Several members of the Department spent the summer of 1953 in research at various points in Eastern Canada. Professors Campbell, Keeping, Wyman, and Fostvedt attended the Canadian Mathematical Congress, and Professors Moser and Crosby the Summer Institute at Kingston, while Dr. Horton carried on studies at the National Research Council in Ottawa. In the Department itself one of the interesting features of the year's activities was the revival of the Mathematics Colloquium at which papers are presented by members of the staff and senior students.

Modern Languages

The French Division of the Department of Modern Languages suffered two serious losses at the beginning of the session in the resignation of Dr. D. M. Healy and a serious accident to Dr. Manoel Faucher which made it impossible for him to return to the University in the session. He is still in France at the beginning of May and making a slow recovery. The teaching problem was met by the appointment of Miss Marguerite Primeau as Sessional Lecturer and the promotion to that rank of Miss Monique Chainet, the Teaching Fellow from France. Dr. E. J. H. Greene was promoted to full Professor and Head of the Department, Mr. Faucher was promoted to Associate Professor, and Dr. Starchuk and Mr. Reinhold to Assistant Professor. The Department's research project had to be abandoned for the year but it is hoped that it can be renewed in the coming year. The honors program was revised during the session, and a new program for Honors in French and English approved. Registration in the Department was up 30% over the previous year, and three students were registered for the M.A.

Philosophy and Psychology

In the past session the Department assumed administrative responsibility for a new course—Sociology 51—given by Professor B. Y. Card of the Faculty of Education. This course represents a valuable nucleus for study in an important field. The demand for testing and counselling has continued to grow and the Department's service in the present session has been almost double that of the previous year. Professor Douglas E. Smith has been appointed to the Medical Advisory Committee of the Alcoholism Foundation of Alberta. He has been elected President of the Council of Community Services of Edmonton and re-elected to the Board of Directors of the John Howard Society of Alberta. Within the University, Dr. Smith has been named Officer Commanding to the Canadian Officers' Training Corps.

Physics

During the past year the Department accepted its first candidate for the degree of Ph.D. in the person of Mr. M. C. Martin of the Calgary Branch teaching staff. He is studying certain properties of metallic crystals under the supervision of Professor Grayson-Smith. The number of candidates for the Master's degree is lower at present, but the number of honors students is again on the increase. The appointment of Dr. D. B. Scott as Physicist to the Provincial Cancer Clinic on a part-time basis will bring about a valuable contact between the Department and the radiologists and provide the necessary physical supervision for deep radiotherapy. Other Department members are continuing research in a variety of fields—Dr. Gowan on the study of ozone,

Dr. Newbound on precision spectroscopy, Dr. Harrold on apparatus for the study of explosive flames, and Dr. Schiff on quantum mechanics.

Political Economy

The members of the Department carried on research in a number of areas of the economy of Alberta and Canada as a whole. Dr. Hanson and Mr. Gainer have almost completed their development of the Alberta economy. Dr. Hanson submitted material on local government and on provincial-municipal relations to the Royal Commission on Agriculture and Rural Life, Province of Saskatchewan, and Mr. Gainer submitted a paper on economic and social change in Western Canada to the same commission. Dr. Mayo carried out a study of civil defence, and Mr. Davy wrote a bulletin on Current Affairs for Grade XII Social Studies for the Department of Education. Mr. Mackenzie participated in a survey of potential agricultural production in Canada.

Zoology

The Department's research continued throughout the year both in the field and in the laboratory. Dr. Rowan continued his study of wildlife cycles, and Dr. R. B. Miller carried out a survey of the sport fishery of parts of B.C. at the request of the B.C. government and supervised the work on the homing behaviour of trout at the Gorge Creek Biological Station. In addition, a permanent camp was maintained at Kehiwin Lake, where studies of tapeworms in fish were carried on. Dr. J. E. Moore, with the aid of Mr. R. Lister, the Departmental technician, continued his study of the fauna of Alberta land vertebrates, adding thirty amphibians, ten reptiles and eighty mammals to the Department's collection. He also carried on a joint study of the taxonomy and distribution of pocket gophers with Dr. R. L. Peterson of the Royal Ontario Museum. All members of the Department took an active part in popular writing and lecturing and attended a number of meetings of popular and professional organizations in the field of zoology.

Report of Professor Mabel Patrick, Director of the School of Household Economics

I beg to submit the following report of the School of Household Economics for the session 1953-54.

Registration in the school this year is slightly higher than last year. The senior class is the smallest for many years and indications are that there will be a greater increase next year.

Registration in classes for nurses and for Education students is 136 and 93 respectively, making a total of 229, as compared with 191 last year.

For the first time, this year the Department of Household Economics is offering an extramural course. Seventeen students are registered in Household Economics 11 at Lethbridge. This class has been taught by Miss Muriel Shortreed.

This year one graduate is doing postgraduate work on a teaching fellowship at Washington State College.

Only seven members of the senior class have accepted student dietitian appointments. Six plan to enter the Faculty of Education.

Renovations are under way in the Department of Household Economics, which will provide additional space and greatly improve the teaching facilities.

Registration in Household Economics classes for Education students for the 1953 Summer Session was larger than usual. There were 108 students, as compared with 84 in 1952. Registration for the 1954 Summer Session indicates that these classes will be still larger.

As usual, members of the Department of Household Economics answered many requests for information, which came by personal calls, by letter and by telephone.

Report of Dean W. Scott Hamilton of the Faculty of Dentistry

The total enrolment in the Faculty for the session was 118. There are 33 in the graduating class, five of whom are special students who were given partial credit for previous training in Europe.

Dr. R. S. Van Alstine returned from three years' study at the University of Michigan and was appointed to the Faculty in September with the rank of Assistant Professor in Oral Surgery. Dr. D. G. MacGregor was appointed as Director of Clinical Dentistry with the rank of Associate Professor.

Drs. Brass, MacGregor and D. R. Stewart represented the Faculty at the meeting of the American Association of Dental Schools in French Lick, Indiana, in the month of March.

Dr. H. R. MacLean is a member of the Subcommittee on Dental Research of the National Research Council, and of the National Dental Examining Board.

The Faculty is co-operating with the Department of Chemistry in two research projects, "The Electro Potentials of Metals Used in Dentistry" and "The Analysis of Fluorides in Water Supplies".

Members of the Faculty have appeared on programs of various conventions in Canada. Invitations have been received to make presentations in Latin-American countries but had to be declined because of the great expense involved. There is every indication that our staff is receiving greater recognition in this respect.

Negotiations are still incomplete with respect to the establishment of a School for Dental Hygienists.

The final report of the Survey Committee of the Canadian Dental Association was received during the year, and in general it was very favorable. Minor points are receiving attention with a view to improving instruction. The reports on all Canadian schools are to be presented to the Council on Dental Education at Toronto in June, and the Dean of this Faculty has been invited to attend.

Report of Dean H. E. Smith of the Faculty of Education

Student enrolment rose from 805 in 1945-46 (Edmonton and Calgary) to a peak of 1,270 in 1948-49. The subsequent steady drop to 928 in 1952-53 shows evidence of reversal in the 1,035 registrations for 1953-54. Equally important is the noticeable tendency towards a reduced registration in the one-year (Temporary License) program and an increase in the larger B.Ed. programs.

Of first-rate importance is the organization this year of two committees for the more effective conduct of research work within the Faculty. The Faculty of Education Committee on Research is composed of the Dean, the Chairmen of Divisions, the Director and Assistant Director of Research, and the editor of a proposed publication—The Journal of Educational Research. Associated with this committee is an Advisory Committee on Educational Research, whose

membership is made up of representatives appointed severally by the Department of Education, the Alberta School Trustees' Association, and the Alberta Teachers' Association, the Alberta Federation of Home and School Associations, and the Faculty of Education itself. The functions of this committee are to consult on suitable research projects and to assist in their financing. The Board of Governors of the University has generously provided financial assistance to get the work well launched. A fairly substantial program of research activity is already under way.

Members of the Faculty have participated generously in community affairs, as will appear in the Division reports following. A warm tribute of thanks is due our practice teaching staffs, both urban and rural, for their wholehearted co-operation in student teaching.

Elementary Education

During the year members of the Division of Elementary Education engaged in many professional activities beyond their normal duties. These activities fall into the following categories:

Guidance—Each member of the Division is an adviser to a group of about thirty students. In this capacity he has an opportunity to discuss common problems on a plane of understanding which is mutually beneficial.

Institutes, Workshops and Conventions—All staff members participated extensively in institutes and conventions held in various parts of the province. There was a total of fourteen such inservice programs. Mr. Card was a delegate to the National Town Planning Association convention in Quebec City. Dr. MacGregor participated at School Trustee conventions at Holden and Fawcett. Miss Lampard presented a paper at the University of Chicago Conference on Reading; attended the National Convention of the Home and School Association in Montreal; and lectured at a two-week workshop for teachers at Yellowknife. Mr. Hodgson was a consultant at the first conference of the C.E.A.-Kellogg course on Educational Leadership. Dr. McDougall participated at the sessions of the C.E.A. Convention at Halifax and at the U.B.C. summer conference on "Conflicting Philosophies of Education".

Panels and Addresses—Many requests were received by staff members to participate in discussions provoked by the recent controversy on Canadian education. To Home and School Associations and other interested organizations the staff contributed on twenty-nine occasions. Addresses were delivered by Mrs. Higgin, Miss Caldwell, Mr. Hodgson, Miss Lampard, Miss Miller, and Mr. Card. Dr. McDougall spoke to the Kiwanis Club in Victoria, B.C., and also to the University of Alberta Workshop on administration. Mr. Card addressed the Community Planning Association, the Y.M.C.A. Workshop on Community Planning, and the Education Society, Edmonton.

Briefs—Several staff members were involved in the preparation of the brief on "Teacher Shortage" for presentation to the Agricultural Committee of the Legislative Assembly. Mr. Hodgson was a member of the committee which prepared the submission of the Home and School Association on the same topic.

Research—Staff members within the limits of the time at their disposal have been engaged in a variety of research projects. Miss Miller and Mr. Hodgson completed a study of the factors related to the success or failure among beginning teachers; Mr. Card prepared a report on "Urban Trends" for the Community Planning Association; Miss Lampard has in progress an investiga-

tion into the causes of spelling difficulties and has completed a survey of the Talmud Torah School for the Hebrew community in the city; Dr. MacGregor is making a study of the salaries of teachers of Agriculture in British Columbia and the border states of the United States.

Radio—Under the direction of Mrs. Higgin, the following members of the Division presented a series of eight broadcasts in co-operation with the staff of the University Elementary School: Miss Caldwell, Miss Miller, and Dr. MacGregor. At various times during the year Miss Lampard gave nine broadcasts, and Mr. Card and Dr. MacGregor one each. Dr. McDougall gave one broadcast in Victoria.

Other Activities—Miss Caldwell and Mrs. Higgin adjudicated at school festivals; Dr. MacGregor wrote five articles for publication in *Canadian Nature*; Mr. Hodgson collaborated with Dr. Gilles in the editing of three Arithmetic books; Miss Lampard is Canadian Chairman of the National Association for Remedial Teaching; Mr. Card is a member of the National Executive of the Community Planning Association; Mr. Hodgson is a member of the Executive of the Provincial Home and School Association; Dr. McDougall is Chairman of the Edmonton Public Library Board. The activities of the members of the Division are deeply rooted in a broad and influential community.

Demonstration Schools—The University Elementary School provides demonstration and experimental facilities for the entire Faculty. The loyal and devoted service of this group of seven teachers is of inestimable value to our teachers-in-training. Associated with the Division in a less intimate fashion are the teachers of forty classrooms in Edmonton and the immediate vicinity. These teachers supervised the teaching of the students for a period of four weeks, distributed through the months of October to March, inclusive. These teachers are rendering excellent service to our teacher education program. In this connection two one-day institutes were held under the direction of Mr. Hodgson and Miss Miller.

Secondary Education

In addition to their teaching duties, the members of the Division of Secondary Education have made contributions in many ways. All members of the Division have participated in the work of various curriculum subcommittees of the Department of Education. Two members served on the High School Curriculum Committee.

Messrs. Baker, Coutts and Melsness spoke at teachers' conventions in Alberta and Saskatchewan. Messrs. Baker, Coutts, Melsness and Sparby assisted the school superintendents with teachers' institutes in seven Alberta centres. Messrs. Coutts, Melsness and Sparby acted as advisers to the C.E.A.-Kellogg Project on School Administration, Mr. Sparby participating on the central planning committee of the project.

Dr. Baker wrote three articles which appeared in the Alberta Teachers' Association Magazine; Mr. Melsness wrote two articles which appeared in the Alberta Teachers' Association Magazine and the Alberta School Trustees' Association Magazine.

Messrs. Baker, Coutts and Melsness taught at the 1953 Summer Session of the University of Alberta.

Mr. Sparby and Mr. Walker have continued their personal research projects on school administration and the history of education in Alberta.

Messrs. Baker and Coutts have been engaged in a research project on language teaching. In addition, members of the Division have been involved in planning the graduate programs of forty students, have served on various University committees and have participated in the radio series sponsored by the University.

Educational Psychology

The academic year just completed has been the most active period since the organization of the Division. This seems to have resulted from wider extension activities in the form of addresses and publications and the increasing demands of graduate students and participation in research. It is encouraging to realize that the six members of the Division have contributed largely to educational leadership throughout the province. It is hoped that the completion of an organization for the sponsoring of educational research will be the most memorable event of the year.

Practice Teaching—All members of the Division participated in the supervision of practice teaching. The new procedures in practice teaching seem to encourage weekly visitations of candidates. In our Division we have a fairly general practice of gathering the candidates together toward the end of each week for a discussion of difficulties. The supervision of practice teaching is time-consuming but valuable in directing the attention of all concerned to the central problem of the Faculty, the production of efficient classroom teachers.

Activities of the Division—According to our usual practice, the Education Clinic occupied a great deal of the time of members of the Division. Dr. S. C. T. Clarke served as Director in 1953-54. During the year the Clinic dealt intensively with 70 cases referred by the educational authorities of the City of Edmonton and the surrounding divisions. As laboratory practice for the students in Education 574, 324 individual intelligence tests were administered as well as upwards of 600 other tests.

Education 574 was also offered in the Summer Session of 1953 under the direction of Professor Dunlop. Over ninety cases were dealt with during the Summer Session although the majority were referred because of subject-matter difficulties and therefore presented somewhat simpler problems than were encountered in the winter clinic.

During the spring term the Education Clinic demonstrated clinical procedures in a two-day visit to the town of Olds. During this visit the cases were discussed at two well-attended meetings of principals, teachers and guidance officers of the area.

The Education Clinic is an adjunct to the teaching and research activities of the Division. Since clinical work is exacting and time-consuming, it would be unwise to permit it to become a service furnished on request to the educational authorities of Edmonton and district.

The Division assumed responsibility for an exhibit and program during 'Varsity Guest Weekend', which was offered in the Education gymnasium. Professors Rees, Clarke, Walker and Pilkington assumed responsibility for the four units of the exhibit.

Drs. Dunlop and Rees assisted in the first Pilot Short Course for Superintendents sponsored by the Canadian Education Association and the Kellogg Foundation.

Dr. J. G. Woodsworth was guest lecturer in the summer session of 1953 in the Eastern Washington College of Education.

Addresses—The Division was called upon to deliver 67 addresses during the year. The number of formal speeches delivered by each member of the staff follows: Dr. Gilles, 9; Dr. Rees, 12; Dr. Clarke, 15; Mr. Pilkington, 14; Dr. Woodsworth, 10; Dr. Dunlop, 7.

Audiences ranged from Provincial Conventions, Home and School Associations, Career Nights, to 4H Club leaders and sororities.

Publications and Articles—Dr. Gilles collaborated in the Canadian Revision of Brueckner and Grosnickle's series of texts in Arithmetic. Drs. Clarke and Woodsworth collaborated in a series of three articles on techniques of guidance published in the Alberta School Trustees' Magazine. Dr. Clarke produced three additional articles on interpretation of modern education. Dr. Woodsworth contributed a series of articles to the A.T.A. Magazine and to the Alberta Home and School News. Dr. Rees contributed articles to the Edmonton Public School Journal, the Trustees' Association Magazine, and was author of a widely circulated book list for retarded readers. Dr. Dunlop wrote two articles for Canadian Education and reprints of addresses were published in the A.T.A. Magazine and the Alberta School Trustees' Association Journal.

Committees—The six members of the Division held membership in thirty-three committees during the year. Committee membership ranged through major University committees such as School of Graduate Studies, the University Research Committee, committee of the Department of Education, and major committees of the Faculty.

Dr. Dunlop acted as Chairman of the Canadian Teachers' Federation Research Committee and is currently serving on the Canadian Education Association Research Committee.

Graduate Studies—Members of the Division were active in the encouragement of twenty-one graduate students who have reached the stage of conducting thesis studies.

Research—Members of the Division were active as well in staff-sponsored research projects. Dr. Clarke is working actively in the field of "Teacher Adjustment" and "Teacher Attitudes" and "The Relation of Adjustment to University Achievement". Dr. Rees sponsored a province-wide study of achievement in reading of Grade IV and Grade VII students in urban, town, graded rural and ungraded rural schools. Dr. Dunlop sponsored a companion study in the field of language achievement.

Mr. Pilkington is busily engaged on his Ph.D. research in the field of mastery of Shakespearian English.

Dean Smith and Drs. Rees and Dunlop were active in the promotion of an organization for educational research centred in the University and associated with the Department of Education, the Teachers' Association, the Trustees' Association, and the Alberta Federation of Home and School Associations.

Report of Dean R. M. Hardy of the Faculty of Engineering

The number of students in this Faculty is 621, compared to 504 last year and 460 during the session of 1951-52. The registration totals show a 20% increase from the previous year and a 35% increase from the low point in registration following graduation of the large classes of student veterans.

The demand for engineering graduates from industry and the public services still exceeds the supply. This is still particularly the case in the fields of Mining, Petroleum and Chemical Engineering and in all cases for graduates who have demonstrated somewhat better than average ability. There is some indication this year, however, that the supply is somewhat closer to satisfying the demand in the fields of Civil and Electrical Engineering.

The heavy demand for engineering graduates has created difficulties in attracting graduate students to the engineering departments. However, instruction and research at the graduate level has continued in each of the engineering departments.

The senior member of the staff in the Mining Engineering Department continued as supervisor of research on the Athabasca Oil Sands project of the Research Council of Alberta. The junior professor in this department has continued the investigation of the characteristics of the Driessen Cone as applied to the concentration of uranium ores. This project is a part of the continuing program of the Atomic Energy Commission and is financed by a grant from the National Research Council.

In the Department of Chemical and Petroleum Engineering, research activities have continued but on a somewhat decreased level of activity because of the difficulty of attracting graduating students in competition with industry. Work is continuing under a fellowship supported by the Interprovincial Pipe Line Company on "The Pipe Line Flow Characteristics of Selected Alberta Crude Oils". The Utilization of Natural Gas project of the Research Council of Alberta is continuing in the Department, the immediate work being concerned with a new experimental furnace for the manufacture of carbon black from natural gas. Work has also continued under this project concerned with "The Partial Oxidation of Butane". Work by a graduate student was also continued on "The Potentiometric Model Study of a Selected Alberta Oil Reservoir".

In the Department of Civil Engineering eight students were registered. Two theses were completed this session, entitled "Design, Construction and Use of a River Tray" and "Physical Properties of Light Weight Aggregate". The river tray work is a continuing project financed by the National Research Council.

Other research work under way in the Civil Engineering Department include "The Engineering Properties of Muskeg" and "Further Studies in Pre-Stressed Concrete". The Highway Research project of the Research Council of Alberta has continued to be handled in the Civil Engineering Department. Work has continued on the prevention of frost action in soils by chemical treatments applied to the soil. Additional financing for this project has been made available by the Prairie Road Builders' Section of the Canadian Construction Association and the Northeastern Paper Products of Quebec City, which is the research organization of the Anglo-Canadian Pulp and Paper Company.

A senior member of the staff in the Electrical Engineering Department has been on sabbatical leave at Imperial College in London during this session. Specialized technical services to industry and public authorities have been provided by all the engineering departments, and a number of members of the academic staff have provided consulting services to both industry and government departments. Relations between industry in the province and the Engineering Faculty have continued on a most satisfactory basis.

The new Engineering Building was occupied during the session by the Departments of Civil and Chemical and Petroleum Engineering. The new space greatly facilitated the handling of the large increase in student registration for this session. Substantial progress has been made in equipping the new laboratories, particularly in Petroleum Engineering. However, it has not as yet been possible to expand the accommodation in Electrical and Mining Engineering in accordance with the plan laid out incidental to the general University building program.

Major revisions in the undergraduate curriculum have been necessitated by the recent changes in the high school curriculum in the province. Incidental to the discussions concerning these, attention has been given to adequacy of the engineering curriculum in general. The possibility of broadening the course somewhat, particularly by the inclusion of a course in English, is being given serious consideration.

Report of Dean W. F. Bowker of the Faculty of Law

Student Enrolment

The graduating class of twenty-five is the smallest in the last five years. Thirty students were in second year and forty-three in first. It would be regrettable if the number entering each year were to fall below forty. Of greater importance than numbers, however, is quality. The Faculty is most anxious to admit only those whose character, aptitude and industriousness are of a high order. It is, of course, impossible to be sure of an applicant's traits, so the Faculty must either refuse to admit those who appear to be on the border line or else admit them knowing that the omens are unfavorable. This is one of the hardest and most important tasks of the Faculty and no ready test of qualifications exists. The Faculty does, however, obtain great help from the Director of Student Advisory Services.

Employment of Graduates

The demand for articulated students far exceeds the supply. A number of graduates from other law schools take their articles in Alberta each year, and a good many more have come to work for oil companies. There are many opportunities in smaller centres but most graduates prefer to take the articles in a larger centre. There they remain after admission, and the demand of the small towns is not met.

Graduate Study

One of our former students, David McDonald, is at Oxford on a Rhodes Scholarship, and the Alberta Rhodes scholar for 1954 is James Redmond of the graduating class. Of the graduates of 1952, Peter Loughheed is completing the two-year course at the Harvard School of Business Administration.

Curriculum

For years the Faculty has been examining the curriculum with a view to revision. It is hoped that our recommendations will be ready by next session.

Library

The John Weir Memorial Reading Room has now been in use for three years. We are fortunate in having as librarian Mr. Mills Shipley, who is not only a qualified librarian but a graduate of this law school. The students make

the greatest use of the facilities of the reading room. Fortunately they have access to the law stacks. The number of books in the library is growing steadily.

Special Talks to Students

The Faculty continued the custom of having special talks for the students. Two talks have become an annual event—one by the Honourable Mr. Justice H. J. Macdonald, "Hints to Graduating Students", and one by L. Y. Cairns, Q.C., "Legal Ethics". Two or three other interesting talks were given this year.

Staff

The only changes from last year are the return of the Dean from his sabbatical leave and the departure of Assistant Professor A. R. Thompson. He did good work during his three years here. The Faculty regrets that he decided to leave, though he had always intended to return to the practice of law. The staff consists of four full-time members and five sessional instructors. The latter are practising lawyers in Edmonton, all graduates of this Faculty, and they continue to make an important contribution to the instruction of the students.

Research

Although the amount of published material is still rather small, it is increasing. Two members of the staff are engaged in graduate work which will ultimately result in published material. A list of this year's publications is in the appendix.

One of our graduates, Mr. George Crawford of Calgary, two years ago established a fellowship in memory of his father, the late Judge J. L. Crawford. The purpose is to assist members of the staff in research and pursuit of graduate work. This generous scholarship, which is unique so far as we know, has been and will be of great value to the staff.

Law Society

The relationship continues close and cordial. The Dean is always invited to make a report on the law school at the annual meeting of the Law Society. Professor Smith made the report this year, the Dean having taken part the same day in another item on the program. The Benchers of the Law Society continue the custom originated four or five years ago of inviting the Dean to their semi-annual meetings. They have the Dean attend their sessions when legal education is on the agenda, and always invite his views.

Within the past year the Law Society has decided to undertake a program of continuing education. It was really begun at the January meeting. The Law Society asked the members of this Faculty if they would support such a plan and take part in it. The Faculty agreed. The session on Drafting of Wills at the January meeting marked the beginning of this program. It was considered a success. The discussion will probably be published.

Conclusion

Again it is a pleasure to report a satisfactory year. The Dean had been away the year before and cannot speak too highly of the way in which Professor Smith as Acting Dean discharged all the Dean's duties. The co-operation and support which all members of the staff provide is a great contribution to the work of the Faculty.

Report of Dean J. W. Scott of the Faculty of Medicine

Fifty-nine applicants were admitted to the first year of the medical course in September, 1953. This is one applicant below capacity but, because of last-minute withdrawals of candidates who had already accepted a position in the Faculty, it was impossible to obtain sufficient suitable applicants to fill the quota. As a result of these withdrawals, the Faculty will now demand a deposit of \$25 from each applicant when he accepts a position in first-year Medicine.

Two second-year and four first-year students have since withdrawn for a variety of reasons, and one partial student has been admitted as well as one student readmitted in January, 1954, after a year's illness.

The number of highly qualified applicants for admission has been dropping steadily in the past four years, so that of those admitted to Medicine in 1950, 73% had an average mark of 70% or greater, whereas in 1953 only 35% of applicants had an average mark of 70% or more. At the same time the number of candidates who had averages of 65% or less or those who were deemed poor risks for various reasons had increased from 0% to 18%.

It is interesting to note that of the students who were readmitted with averages of 70% or over, none have failed and only 5% are in any academic difficulty, whereas of those who had an average of 65% or less, 20% have failed and a further 30% are in difficulty, so that one-half of this group appear to be poor academic risks.

As this lowest group becomes a larger percentage of our total enrolment, we must expect an increasing number of failures. It is well known that each student pays fees which are the highest on the campus, and besides this the University has made a very large financial outlay in the teaching of each student. Thus each failure means considerable financial wastage to both the student and the University.

The students are now experiencing difficulty in obtaining summer employment as highly remunerative as has been obtainable in the past. It appears likely that some highly qualified students, who would be interested in a medical course, cannot enter the course because of inadequate financial support. An overall lowering of medical fees might well result in an increased percentage of more desirable students in the medical faculty and a subsequent decrease in the financial wastage occasioned by the withdrawal of poor students.

If, however, the number of well-qualified applicants continues to decrease, there will result, in all likelihood, a group of graduates with fewer of the brilliant members so necessary in maintaining and improving medical standards and knowledge.

Since some of the students now being admitted are definitely poor academic risks, the first year becomes, in a sense, a probationary year. In view of this fact it is felt advisable to alter (but not reduce) the medical fees. Accordingly, first-year fees have been reduced by \$150 to \$300 and the amount added to the fees of later years. Thus a student in his four years still pays the same total fees but has the financial burden eased for the first year, in which most of the failures or withdrawals occur.

The duties of the staff in several departments (particularly those teaching basic sciences) will be increased in the coming year as a result of the introduction of a School of Physiotherapy under the jurisdiction of the Faculty of

Medicine. The groundwork for this course was laid during the past year and the first students will register in September of 1954.

All the basic science departments are now indicating that the administrative and teaching loads of the individual members are so great that there is not enough time for the conducting of extensive research programs; this is leading to a feeling of dissatisfaction among members of the basic science departments.

The difficulty of maintaining a staff in the basic sciences in view of this great teaching load at the University and the low salaries compared to those obtainable in other places has resulted in the loss, in the past year, of one associate and one assistant professor.

The Faculty also suffered the loss, this time by death, of Dr. Irving Bell, Honorary Professor of Therapeutics, and Dr. Georges Fortier, Instructor in Obstetrics and Gynecology.

In the Departments of Anatomy, Bacteriology, Biochemistry, and Physiology, a total of nine graduate students are working towards the degrees of M.Sc. and Ph.D. Most of these students will work a twelve-month year rather than the usual eight-month academic year. During their course they receive advice and supervision from members of the staff of the departments in which they are working.

The Committee on Graduate Training of the Faculty of Medicine continues to direct the studies of various doctors (graduates of this and other universities) who are taking work leading to certification as specialists in the various branches of medical sciences. There are at present twelve trainees obtaining training as directed by this committee. Of the twenty-three trainees of this committee who had completed their course by January, 1954, eleven are on the staff of this medical school. It should be indicated that all this training is without expense to the University or the government, but that the wholehearted and active support of the staff is necessary for the program to be as successful as it has been to date.

As in the past, the staff has devoted much time to extramural functions. Local and national and even international learned societies benefit from the administrative ability and scientific knowledge of our full-time and part-time staff. The medical refresher course and travelling teams of teachers give Alberta practitioners the latest knowledge of the diagnosis and treatment of various conditions and the men engaged in research report their findings at various meetings and in the scientific press (a list of publications during 1953-54 by the staff is appended to this report).

Financial support for the research mentioned has come from the Medical Research Fund of the University, the National Research Council of Canada, the National Cancer Institute, the Alberta Cancer Society, and the Defence Research Board. Two beds for clinical research at the University of Alberta Hospital are supported by the Alberta Cancer Society and the Kinsmen Club. The McEachern Laboratory for Cancer Research has been in constant use by various research workers and in the past year has been very well equipped with Biochemical and Radioisotope equipment furnished largely by the Alberta Cancer Society.

Distinguished visitors who have visited the Faculty in the past year and have spoken to the staff and/or students are: Dr. J. Z. Young, Department of Anatomy, University College, London; Dr. S. Hadfield, Pathologist for the

Royal College of Surgeons, London; Dr. E. T. Bell, Professor Emeritus of Pathology, University of Minnesota. The stimulating effects of such visits for both staff and students cannot be overemphasized.

Report of Prof. H. E. Penhale, Director of the School of Nursing

Considerable thought is required to answer the question, What kind of nursing care must be planned for individuals, in the near or distant future? Emphasis in the past has been placed on the need to acquire scientific knowledge and technical competence. In addition to these abilities, the nurse must develop the ability to understand her patient, to work co-operatively with professional and non-professional workers in her own field and in allied fields, to understand her relationship with the patient's family and to understand her relationships with the community. This change in philosophy necessitates marked changes in the curriculum—a few of which have been implemented during the past year.

The total enrolment in the School of Nursing continues to increase. Three hundred and forty-seven students registered in the eight programs, an increase of twenty-three over the preceding year. There are fifty-five in the five-year degree program, forty-five in the four-year degree program, ten in the one-year course leading to the Diploma in Public Health Nursing, fourteen in the one-year course leading to the Diploma in Teaching-Supervision in Schools of Nursing, seven in the four-month course leading to the Certificate in Advanced Practical Obstetrics, and one in the postbasic program leading to the degree. In September 190 diploma students and six affiliating students from the Provincial Mental Hospital registered. A class of fifteen diploma students and four affiliating students registered in February.

During the year a number of changes have been instituted in the undergraduate program. Requirements for promotion and graduation were more clearly defined and became effective on September 1, 1953.

On September 1, the student allowance was increased from \$10 to \$12.50 per month. The allowance is now given for thirty-two, rather than for thirty-one months of the course.

On October 1, a change in the vacation program was instituted. Each student receives twenty-eight days in each year plus three statutory holidays over the Christmas season. The vacation may be divided in order that each student have part of her holiday during the usual holiday months.

On January 11, 1954, another unit was opened at the University of Alberta Hospital. This unit provides the students with clinical experience in psychiatric nursing.

A recreational program was developed and continued throughout the year. This included a choral group under the direction of Mrs. G. Kay Greene and a sports program under the direction of Miss June Holman.

Curriculum revision, started in 1952, has continued. Courses which were taught in the senior year are now offered earlier in the program and nearer the time when the students will be receiving their clinical experience. Several of the courses have been grouped in order to eliminate a number of the very short courses formerly offered. There is a more clearly defined pattern of rotation for students through the clinical services. The paediatric experience will be improved through arrangements for field visits to the South Side Health Clinic.

A committee has been working on the revision of nursing procedures in order that the teaching be in accord with clinical practice.

Students in the postgraduate courses were given the opportunity of qualifying as examiners and instructors in first aid. This course was given by an instructor from the Canadian Red Cross Society.

The concern felt by the nurses over the poliomyelitis epidemic necessitated a reorganization of the timetable in order that they might volunteer their services. The Administration at the Royal Alexandra Hospital have expressed their gratitude for the assistance which the postgraduate students gave during the two-week period in November when the epidemic was at its peak.

A number of changes were made in the four-month course leading to the Certificate in Advanced Practical Obstetrics. Classes were given on the Obstetrical Unit at the University of Alberta Hospital, thereby making better use of the clinical facilities. Principles of Teaching and of Ward Administration were included in the course for the first time.

The staff continues to assist nurses throughout the province. A short course on "Nursing and Poliomyelitis" was offered in October. In March a five-day course in "Team Nursing" was offered in Edmonton and repeated in Calgary.

The staff participated in the program for Farm Young People and in the High School Career Day programs.

The staff join me in expressing our thanks to members of the University of Alberta Hospital Board, to the Medical Staff, especially those who assisted in the teaching program, to the members of the Council of the School of Nursing and to the Department of Extension for their continued interest, co-operation and support.

Report of Dr. M. J. Huston, Director of the School of Pharmacy

Academic

Dr. M. J. Huston, Director of the School of Pharmacy, was on sabbatical leave during the term. He is carrying out research in the field of marine physiology at the University of Washington.

Dr. B. E. Riedel completed the requirements for the Ph.D. degree in Biochemistry at the University of Western Ontario and was awarded this degree at their Fall Convocation. During the summer he carried out a biological research project at the Atomic Energy Commission at Chalk River, Ontario. This research was made possible by a grant from the Department of Public Health given to Dr. Riedel.

Mr. J. R. Murray returned from the Ohio State University, where he spent a year's sabbatical leave working towards the doctorate degree.

Mr. D. C. Hobbs was engaged for a second year as Sessional Lecturer.

Mr. D. R. Innes served as Sessional Lecturer for the academic year.

Comprehensive oral examinations were again conducted for all students in the graduating class.

Extension

The refresher course in conjunction with the annual convention of the Alberta Pharmaceutical Association was again conducted by the School of Pharmacy. The meetings were held in Banff.

Extension bulletins on recent advances in Pharmacy were prepared and distributed to all pharmacists by the Alberta Pharmaceutical Association.

The third Interns' Night held at the School was well attended. The program closely paralleled that of previous years.

The School organized and conducted extension lectures at nine district meetings of the Alberta Pharmaceutical Association during the winter. The Canadian Foundation for the Advancement of Pharmacy assisted the provincial association financially in this project. Meetings were held at Edmonton, Calgary, Lethbridge, Medicine Hat, Vegreville, Camrose, Red Deer, Stettler and Drumheller. Faculty members presented a total of thirty-three lectures, while guest lecturers presented three. Some 250 pharmacists attended. It is felt that the interest shown will warrant continuation of the lectures on an annual basis.

Dr. Riedel again served as an abstractor for the Physiology, Biochemistry and Pharmacology section of the *Excerpta Medica*. He also continued his position as Chief Training Officer for the University Reserve Squadron. Mr. Anderson was an active member of the Y's Men's Club.

Staff members presented papers to professional societies, service clubs and similar groups as follows: Dr. Huston, 5; Dr. Riedel, 22; Mr. Anderson, 14; Mr. Murray, 12.

Research

Dr. Riedel directed two graduate students in projects related to phosphorous metabolism in cancer studies. He has planned and organized the isotope laboratory of the McEachern Cancer Research Laboratory, which is now in operation.

Dr. Riedel also collaborated with Dr. R. K. Brown in the testing of the carcinogenic properties of certain indole compounds when fed to rats.

Mr. Murray carried out research on hypertension in experimental animals.

Other problems being investigated included: (1) Photomicography of Alkaloidal Crystals, (2) The Effect of pH on Germicides in Ointment Bases, (3) The Effect of Controlled Agitation on Emulsion Formation; (4) Characterization of Certain Drugs as Reineckate Salts, (5) Chromatographic Separation of Sulfonamides, (6) Analysis of a Suburban Drug Store, (7) Chelating Agents in the Removal of Zinc from Rat Tissues, (8) Survey of Hospital Pharmacy in Alberta, (9) Infra-red Drying in Pharmacy, and (10) Drug Absorption from Ointment Bases.

Report of Dr. A. L. Doucette, Director of the Calgary Branch

This report represents a compilation of data and information on the operation of the Calgary Branch of the University for the 1953-54 session as supplied to the Director by the following persons: the Assistant to the Director, the Secretary of the Faculty of Education, the Supervisor of Advisory Services in Calgary, the Supervisor of Medical Services in Calgary, and the Assistant Provost in Calgary.

Faculty of Arts and Science

(a) To the Arts and Science offerings of 1952-53, the first year of Commerce was added in the fall of 1953 and two Sessional Instructors were appointed to give instruction in Accounting 1 and Commercial Law 41. There were twelve

students enrolled in the Commerce program and during the year two have dropped out.

One regular member of the Arts and Science staff was dropped because of low enrolment in courses offered. German was removed from the timetable and an arrangement was made to have a city high school teacher give Latin 2 on a part-time basis. Student enrolment this year is just about the same as last—a little down in Arts and Science but with a net registration slightly higher as a result of the addition of Commerce. We have had fifty-three full-time students.

(b) *Research*: Staff research activities are necessarily limited to the summer months because of pressure of lectures and laboratory supervision during the regular term. A. R. Prince, Assistant Professor of Botany and Zoology, assisted the Department of Forest Pathology in an extensive classification of mosses and lichens. By arrangement, he kept samples of all the materials he examined, thus adding to the collection of the Calgary Biology Department.

Victor E. Graham, associate professor of French, with a \$200 grant from the Staff Research Fund, carried on work on a critical edition of the works of Philippe Desportes, a French poet of the sixteenth century. Microfilms of editions unavailable on this continent were procured from the French Bibliothèque Nationale and the project should be completed within a year.

(c) *Open House at the Calgary Branch*—For the third successive year, the Calgary Branch of the University of Alberta held Open House. This year it came on March 10 during Education Week and all classes and laboratories were in full operation. The Students' Union Building was open, basketball games were performed in the gym, and a rehearsal of the Choral Society was held. As special added attractions, Mr. Alex Markle, Secretary of the Alumni Association, conducted showings of the film, "Spring Convocation", which aroused great interest, and the Drama Society gave a second showing of Christopher Fry's "A Phoenix Too Frequent". The Open House was most successful and attendance was estimated at close to 1,000 persons.

(d) *Closing Exercises*—Following the pattern of previous years, the closing exercises of the Calgary Branch were held in Central United Church under the chairmanship of the Chancellor, Dr. E. P. Scarlett. Parents and friends saw students and academic staff in procession, the latter in their robes, and greetings were brought by distinguished guests—President Stewart, Mayor Mackay, Mr. Aubrey Earl, who represented the Minister of Education and the Premier of the province, and Deans Smith and McCalla. The address, "Challenge Unlimited", was given by Grant MacEwan, and class history and valedictory by students. Following the ceremony in the church, students and staff received guests at tea in the University buildings.

(e) *Humanities Association*—In the fall of 1953, a Calgary Branch of the Humanities Association of Canada was formed under the chairmanship of Dr. V. E. Graham. Membership in the Association reached forty-four, and five very successful meetings were held. Dr. E. P. Scarlett addressed the first, and at the second a panel on Education with Drs. Hardy, Swift, Coutts and Mawat drew the biggest turnout of the year. At the third and fourth meetings, papers on literature were given by Dr. and Mrs. Watson and Drs. M. H. Scargill and E. F. Guy. At the final meeting on April 2, Dean Bowker of the Faculty of Law spoke on "Freedom of Speech".

(f) *The Alliance Francaise*—The Calgary French Alliance held its regular meetings at the University Branch again this year. The President for 1953-54 was Dr. V. E. Graham, Associate Professor of French. Local speakers were heard and three visiting speakers from France included Calgary in their itinerary under the auspices of the Union of French Alliances.

Each year the French Embassy allocates to the University in Calgary and to the Calgary French Alliance a sum of money for the purchase of French books. This year, as was the case last year, the French Alliance turned over to the University its appropriation. Dr. Beauchemin, Honorary President of the French Alliance, is also the donor of an annual prize in French awarded to the best student in French 2 at the Branch.

(f) *Publicity*—The city of Calgary is becoming more and more aware of the existence of a university in the city. Our Open House and Closing Exercises have been widely publicized and members of the University staff have carried on extension activities in the city which have helped to create goodwill toward the University. In particular, the Humanities Association has brought to the public the sort of activity that is customarily associated with a university.

The Faculty of Education

(a) *Enrolment, Staff and Course Offerings*—The enrolment of the Faculty of Education, Calgary Branch, in 1953-54 consisted of ninety-two Temporary License students and 111 Bachelor of Education students, making a total of 203 students. In addition to these full-time students there were eighty-three Faculty of Education students taking part-time classes, making a grand total of 286 students in the Faculty of Education using the facilities of the University.

The staff at the Calgary Branch of the Faculty of Education were ten in number, assisted by two staff members from the School of Physical Education, and one Librarian and an Assistant Librarian. There were three non-academic staff members in the General Office at the Calgary Branch.

The Calgary Branch offers the first two years of the Bachelor of Education degree program and the first three years of the Bachelor of Education in Industrial Arts. In the latter program, the University uses the facilities and the staff of the Institute of Technology and Art.

(b) During the 1953-54 session Mr. J. D. Aikenhead completed his research on "Reasons Why Grade Twelve Students Do or Do Not Choose Teaching as a Career". This research thesis will complete the requirements for Mr. Aikenhead's Doctor of Education degree at the University of Oregon.

(c) *Practice Teaching Program*—The practice teaching program at the Calgary Branch was essentially the same as in previous years. Nine rooms in the University Demonstration School are used for practice teaching purposes for the one-year students, while six other city rooms are also used for one-year students, and fifteen rural classrooms are also made use of. Besides this, some fifty-one city classrooms are used for Bachelor of Education and Bachelor of Education in Industrial Arts students.

(d) *Placement*—The Calgary Branch of the University provides an informal placement service for any students who desire that type of help. Dr. T. G. Finn acts as Placement Officer for all matters dealing with Education and maintains correspondence with the Superintendents of Schools and with School Boards. Dr. J. T. Woodsworth acts as Placement Officer for all students requiring jobs outside of Education: in this way students can get enough money to return to

University during the next year. Dr. Woodsworth works in close co-operation with the National Employment Service.

(e) *Extension Courses*—There has been an increase in the number and extent of the extension course offerings at the Calgary Branch this year. Two courses were offered for credit—Accounting 1 and Education 326. Some thirty-two students took Accounting 1 for credit at the University of Alberta, and fourteen students enrolled in Education 326 for credit. The non-credit courses included a Refresher Course for Teachers, a Real Estate course, and courses in Effective Reading, Law for the Layman, Income Tax Problems in Business, and Effective Writing. The enrolment in each of these courses has been very satisfying.

Advisory Services

The nature and extent of the advisory services at the Calgary Branch of the University of Alberta are as follows:

(a) *Counselling by Staff Members*—As in previous years, Faculty members in both Education and Arts and Science have shared the counselling load of this Branch. Some members have not felt adequate to the task; however, there is no evidence today that this method of assigning counsellees to various staff members is ineffective or undesirable.

(b) *Activities of the Advisory Service Office*—Dr. J. G. Woodsworth is in charge of the Advisory Services office. He states that the office has not yet adopted the practice of tabulating every interview either in regard to numbers held or time taken for each individual interview. However, it is estimated that about ten hours a week is spent interviewing or doing other Advisory Services business, which is approximately equal to a counsellor's lecture load of twelve hours per week.

Medical Services at the Calgary Branch

Medical Services are under the supervision of Miss M. O. Cogswell, R.N., who replaced Miss R. Chittick in September, 1953.

In Calgary there is no infirmary for the students. A nurse looks after the Medical Services and refers special problems to the Director and another member of the Faculty.

The students pay a medical fee of \$4 per year for services which include a physical examination at the Calgary Associate Clinic and also routine treatment by the nurse for ordinary acute illnesses or injuries.

During the 1953-54 term, 250 students had physical examinations and sixty-three students were rechecked or referred for illness or accident. There were no serious accidents or long-term illnesses.

A very successful five-day nursing course, sponsored by the Department of Extension, was held in March. Forty-seven nurses from all parts of the province attended, as well as several from British Columbia and Saskatchewan.

General Work of the Assistant Provost, Mr. E. W. Buxton

(a) The Assistant Provost is Secretary of the Calgary Committee on Student Affairs. At the Calgary meeting held on March 15, all student organizations reported an active and successful year. Under the direction of the Students' Council, the recently-acquired Students' Union Building increased in beauty

and in utility by the furnishing of a comfortable lounge and the equipping of recreation rooms and offices for student organizations.

(b) The Education Undergraduate Society worked in close harmony with the Alberta Teachers' Association to encourage a professional outlook among members of the Faculty of Education.

(c) In addition to revealing a vigorous interest in all campus activities, the Arts and Science Club sponsored industrial visits and a special formal dance. These Arts and Science Club activities promise to become annual events.

(d) The University Athletic Board sponsored a well-balanced program of intramural and interschool sports which included basketball, volleyball, badminton and curling.

(e) Student publications included the monthly *Cal-Var*, a weekly *Cal-Vette* and pamphlets for prospective students.

(f) The 1953-54 Calgary Evergreen and Gold is expected to be in the hands of the students by April 20.

Conclusion

All in all, it is the opinion of the Director that the Calgary Branch of the University has experienced a very successful year in all aspects of the administration. The co-operation of staff members is complete indeed and the Director appreciates the ready and willing assistance given by the various branches of the administration and by heads of the departments and co-workers at the University in Edmonton.

Report of Dr. John W. Gilles, Director of the Summer Session

Registration and Attendance

The advance registration for the University of Alberta Summer Session reached a total of 1,965, a decrease of ninety-seven from 1952. Cancellations of registrations were received from 128 students and another 215 registrants failed to attend. As a result, 1,622 students appeared for classes. The corresponding figure for 1952 was 1,668. A summary of the attendance figures follows:

	Veterans			Civilians			Faculty Total
	Men	Women	Total	Men	Women	Total	
Education	30	3	33	490	902	1392	1425
Agriculture				3		3	3
Arts and Science	8	1	9	42	35	77	86
Commerce				4	1	5	5
Household Economics					7	7	7
Engineering				2	1	3	3
Nursing							
Pharmacy	1		1	2	2	4	5
Graduate Studies	6		6	57	13	70	76
Auditors				2	2	4	4
Specials	1		1	7		7	8
	<hr/> 46	<hr/> 4	<hr/> 50	<hr/> 609	<hr/> 963	<hr/> 1572	<hr/> 1622

Of the students who actually attended the Summer Session, 87.7% were reported as registered in the Faculty of Education, as against 88.1% for 1952. Students registered for graduate work in the Summer Session constituted 4.7% of the total registration as compared with 3.8% in 1952.

Instructors

The Summer Session teaching staff was comprised of a total of 87 instructors, two less than in 1952. The following summary indicates the sources from which these instructors were drawn:

Classification of Instructors

Full-time members of University staff	46
Instructors from Affiliated Institutions	2
Visiting Instructors from Alberta:	
Department of Education	2
School Systems	10
Others	6
	— 18
From Other Provinces	10
From U.S.A.	11
	— 39
	87

Visiting instructors from outside the province included the following: Dr. Dalbir Bindra, McGill University; Mr. Donald S. Blair, Seattle Public Schools; Mr. Lawrence R. Cluderay, Vancouver, B.C.; Mrs. Della Davison, Iowa State College, Ames, Iowa; Mr. Guyot Frazier, Oregon State College, Corvallis; Mr. Charles W. Harwood, Oregon State College, Corvallis; Miss Frances Holland, Plattsburg Public Schools; Mr. James A. Hood, University of Saskatchewan; Mr. John A. Irving, University of Toronto (Victoria College); Mr. Louis F. LeGall, University of British Columbia; Dr. Victor Linis, University of Saskatchewan; Miss Jean McEwen, University of British Columbia; Dr. W. John McIntosh, Toronto Public Schools; Miss Mary Clela Scholtes, Minneapolis Vocational School; Dr. J. W. Sherburne, Oregon State College, Corvallis; Dr. Stuart R. Tompkins, University of Oklahoma, Norman, Okla.; Rev. Father J. Tremblay, Petit Seminaire de Chicoutimi, Quebec; Dr. Frank Uhler, Federal Department of Agriculture, Ottawa, Ontario; Dr. Robert R. Wark, Harvard University; Dr. Louie W. Webb, Northwestern University; Miss Waneta Wittler, Utah State Agricultural College, Logan, Utah.

No adverse criticisms were received about the work of any of the visiting instructors. On the other hand, excellent reports were received about several of them.

Courses

It was originally planned to offer eighty courses in the Summer Session. However, four of these had to be withdrawn because of insufficient registrations. At the last moment a course in dramatics, not originally scheduled, was added at the request of the Department of Fine Arts to accommodate a small group of students who required specialized training. Of the seventy-seven courses which were offered, seventy-five were full courses and two were half courses. Thirty-one of the courses offered had laboratory requirements varying from five to fifteen hours per week.

Industrial Arts courses were again taught in Edmonton at Victoria Composite High School by members of the staff of that school. No Summer Session courses were offered in Calgary.

Size of Summer Session Classes

Except in the cases of courses where specialized equipment needed for

teaching was available only in limited quantities, no attempt was made to place registration quotas on Summer Session classes. As a general rule, if the number of students registered in a course became too great for one instructor to handle efficiently, one or more additional sections were formed and additional instructors were appointed. Thus, in general, no artificial barriers were placed in the way of students' registering in the courses of their choice, while at the same time instructors were protected against having exceptionally heavy classes.

The following table shows the distribution of Summer Session classes according to size:

<i>Size of Class or Section</i>	<i>Frequency</i>
10 students or less	15
11 to 40 students	46
41 to 60 students	17
61 to 80 students	7
81 to 100 students	2
	—
Total (classes or sections)	87

It will be noticed that sixty-one classes (approximately 70% of the total) enrolled fewer than forty students each. There were twenty-four classes which drew from forty-one to eighty students each. A small number of classes falling in this category might have been sectioned to advantage, but in none of these courses was there a serious hardship imposed on either students or instructor. This leaves only two classes which definitely should have been reduced in size by sectioning. One of these was a History class where the instructor was given the assistance of an expert reader. The other class was not sectioned, largely because the instructor himself advised against it.

The above table suggests, but does not show clearly, that a fairly large number of Summer Classes were relatively small. In fifteen classes ten or fewer than ten students were enrolled. There were forty-two classes in which there were fewer than thirty students. This is an improvement over 1952, when there were fifty-two classes in this category.

Experience seems to show that with the present scales of instructional fees and instructors' honoraria, the Summer Session can meet its direct costs on an average class load of thirty students per instructor. In the 1953 Summer Session the average class load was 32.5 students per instructor.

Special Events Program

That part of the Special Events Program which was directly sponsored by the Summer Session consisted of three musical programs and one lecture. Miss Lillian Kester of Edmonton opened the series with a very fine piano recital. The lecture was given by Mr. John A. Irving, Head of the Department of Philosophy at Victoria College, who spoke on "Philosophy and World Understanding". Mr. Lawrence R. Cluderay of Vancouver provided a very fine organ recital. The lecture was given by Mr. John A. Irving, Head of the Department of Music, who spoke on "The Music of the World". The choral recital presented by the combined music classes of the Summer Session, under the direction of Mrs. C. Higgin, Mr. Lawrence R. Cluderay and Mr. Raphael Lopatka, brought the series to a close. Two Summer Session students, Miss Ida Anton of Medicine Hat and Miss Marjory Brown of Calgary, appeared on this program as soloists. There was a perceptible decline this year in the number of students who attended these Special Events Programs.

The Summer Session Students' Council and the local branch of the Institute of International Affairs jointly arranged a public meeting in Convocation Hall, at which Dr. Stuart R. Tompkins, visting instructor in History from the University of Oklahoma, spoke on "Russia and the West".

During the course of the Summer Session, students had the opportunity of attending the Studio Theatre production of "Boy Meets Girl". Students in Education 136 and Education 236 took an active part in this production, which was under the general direction of Mr. Gordon Peacock.

A special Sunday service was held in Convocation Hall on July 26th, with the Reverend D. J. C. Elson, Dean of St. Stephen's College, as Minister in charge. The large attendance justified a continuance of this feature of the Special Events Program.

Report of Dr. Osman J. Walker, Director of the School of Graduate Studies

The number of candidates in the Ph.D. program is steadily increasing. Five departments, namely, Animal Science, Biochemistry, Philosophy, Physics and Plant Science, now have students working for this degree. One of the highlights of the year was the granting of the first Ph.D. degree at this University in the Fall Convocation.

The School is happy to report that the D.Sc. degree will be conferred on Professor E. H. Strickland of the Department of Entomology at the May Convocation. In connection with his candidature, many glowing tributes were made by the three external examiners who considered the scientific value of his fifty scientific papers.

Registration

Following the trend of the last few years, there has been a small decrease in the registration of students in the School this year. This has been the case with Special Graduate students and with candidates for the various Masters' degrees. The total registration for the academic year amounted to 277, made up of 83 in the Summer Session and 194 in the regular session. After allowing for 28 registered in both sessions, it can be seen that 249 different individuals were undertaking graduate work. There were only 27 women registered in the regular session. The distribution of students according to session and degrees sought was as follows:

	Regular Session	Summer Session	Total	Duplicates	Total, less Duplicates
Master of Arts	38	15	53	12	41
Master of Education	43	58	101	15	86
Master of Science	60	1	61	1	60
Doctor of Philosophy	12	.....	12	.....	12
Working for degrees	153	74	227	28	199
Special students	41	9	50	.....	50
Total	194	83	277	28	249

It will be noted that the majority of the students in the Summer Session are working for the M.Ed. degree. During the regular session, candidates were proceeding to advanced degrees in 28 departments or divisions as follows:

Animal Science	3	English	6
Anatomy	2	Entomology	1
Bacteriology	2	Geology	9
Biochemistry	3	History	8
Botany	1	Mathematics	1
Chemistry	7	Modern Languages	3
Chem. and Pet. Engineering	4	Pharmacy	2
Civil Engineering	8	Philosophy and Psychology	13
Classics	1	Physics	7
Dairying	2	Physiology	2
Elementary Education		Plant Science	10
Secondary Education	43	Political Economy	8
Education Psychology		Soils	2
Electrical Engineering	1	Zoology	4

Recommendations for Degrees

The degrees awarded at the October, 1953, and May, 1954, Convocations were 38, made up of: M.A., 5; M.Ed., 5; M.Sc., 27; Ph.D., 1; total, 38.

Scholarships and Fellowships

There is still a shortage of applicants for scholarships. Last May, three were not awarded and one was later resigned. Two of these four were not awarded in October after canvassing departments affected. This spring the same situation exists.

Report of the Librarian, Miss Marjorie Sherlock

The three libraries which compose the University Library—the Rutherford Library, the Education Library, and the Library of the Calgary Branch—have just completed the busiest year of their history. During the past three years the students have “discovered” the library and its value to them in their work. This has entailed a much heavier use of books and reference material in all departments, as well as a marked increase in the use of reading rooms for study.

A comparison of figures for the three years is instructive. A count of readers is taken once an hour in the various reading rooms except the Smoking Room, which is unsupervised. This figure therefore represents actual reading hours. Attendance for the three libraries for 1951-52 was 181,417; for 1952-53, 308,481; for 1953-54, 340,360. Total circulation for 1951-52 was 148,602; for 1952-53, 160,348; for 1953-54, 176,068. Since in most of the reading rooms the books and journals are on open shelves directly accessible to readers, the actual use made of the books is many times greater than that shown by the recorded circulation figures.

The Summer Session, with a registration of approximately 1,700, made heavy use of the Library. To relieve the strain on the Education Library, a number of the larger education classes were again scheduled at the north end of the campus and the books for these courses were circulated from the Rutherford Library.

The Reserve Reading Room and the Browsing Area were again kept open in the evenings. More books were circulated from the Browsing Area during July than during any single month since the Rutherford Library was opened, indicating that the Summer School students appreciate the opportunity to read

current books of general interest, apart from those required for their courses.

With the offering of evening classes for credit by the University, the Library made special arrangements to enable these borrowers to obtain books from the stacks during the evenings, as well as professional reference assistance. Increased library hours are planned for the coming year which will make it possible to offer full stack service to these students in the evenings.

It is impossible to estimate the time spent in helping people outside the University to find the technical information they need. This work is increasing all the time, and readers such as these usually require much more assistance than students or faculty, as they are not familiar with the Library. Much of the burden of this work falls on the Main Reference Department and the Medical and Applied Science Reading Rooms.

At the present time any adult may use the Library for reading and reference, but borrowing privileges are extended only in certain specific cases—to Dominion, Provincial and Civic officials needing research materials, to the Friends of the University, to Alumni of this University or research workers from industrial organizations for a specific technical problem, and only when the books are not required for student use. For many years this service has been given from our Medical Library to Medical and Dental practitioners in the province, with a resultant heavy load on books and staff time.

As the only large research library in the area, we recognize an obligation to supply this service and are happy to do so within the limits of our capabilities, but it is a question of how much farther we can do so with our present staff without interfering with the proper performance of our work for students and faculty.

Library Subcommittee

This Committee met four times during the year. It discussed numerous problems connected with library policy and service and approved the expenditure of reserve funds for the building-up of back files of journals and other research material.

The Committee supported a request to the Board of Governors for increased book funds, based on the University's expanding program and the resultant increase in the Library's service load. As a result of these representations the fund for books, journals and binding has been increased by approximately 35%.

The Committee also approved a survey of the book needs of the various teaching departments, to be carried out by the Library during the summer of 1954. This survey will form the basis for a revision of departmental book appropriations.

Reorganization of Services

The reorganization of the various library departments and reading rooms, which was begun during our first year in the new building, was continued during the year. Simplification of routines and standardization of forms for the various areas have been carried out. Staff manuals have now been prepared to increase efficiency and give continuity. The purchasing and distribution of all supplies has now been centralized under the Order Department. A new method of recording book purchases and of informing the teaching departments of incoming books in their special fields has been worked out and will be put into effect this coming year.

Inventory and Reclassification—During the past two summers a full inventory of the library has been completed—the first in many years. During the process much outworn or outdated material was discarded, with the advice of members of the teaching staff, preparatory to the reclassification of the collection according to the Library of Congress scheme.

This reclassification program, which we estimate will require four years for completion, was authorized by the Board of Governors in April, 1952. Now at the end of two years' work the Chief Cataloguer reports the project running to schedule, with approximately one-half of the work completed. Two landmarks in this project were passed this year with the completion of the Medical and the Applied Science collections. Work has now begun on the Main Stack collection and it is hoped to have the Literature Section completed by the beginning of the fall term.

Staff

The Library during the past year has had a full-time staff of 32, of whom 16 were qualified librarians. In addition a professional cataloguer and a typist are employed during the period of reclassification.

Student Assistants—In staffing the Library an attempt is made to employ student assistants wherever possible for the routine and more mechanical work, such as reserve book circulation, stack service, shelving, and the physical processing of books. This enables us to augment the staff during those periods of the year and hours of the day when the service load of the Library is heaviest.

During the past term sixty student assistants were employed for varying periods weekly—six in the Calgary Library, 16 in the Cataloguing Department in processes connected with reclassification, and the remainder in the Circulation Department, the stacks and various reading rooms, assisting at the desk or shelving books.

Special Facilities

The special facilities of the Rutherford Library continue to give satisfaction to readers and staff. The Browsing Area has been used to capacity all year. The books displayed here include the best current publications in all non-technical fields—biography, fiction, travel, international affairs, poetry, fine arts—selected and displayed to permit students to see and handle good general books and to form the habit of reading for its own sake, apart from the more purposeful reading for their University courses. In 1952-53 there was a 90% increase in the use of this area and a further increase of 40% in 1953-54.

During the year the exhibits in the various cases in the main rotunda were changed monthly under the direction of the Order Librarian and were a source of interest and pleasure to library users and visitors. Rare books, manuscripts, pictures, Roman and Venetian glass, Greek pottery, Canadiana, antiquities and curios from Egypt, the Congo and the Canadian Arctic were included in the displays.

The Music Room continued to give pleasure to a regular and increasing group of listeners. Daily noon-hour programs were arranged by three senior Music students under the general supervision of a member of the library staff and were well attended. The late afternoon programs were discontinued because of poor attendance, but the weekly evening presentations of a full

opera, symphony or recorded play were well attended. The latter included Steven Vincent Benet's *John Brown's Body*, Ibsen's *Hedda Gabler*, T. S. Eliot's *Murder in the Cathedral*, *The Medea*, with Judith Anderson in the title role, and *Hamlet*, *Macbeth*, *Othello*, and *Romeo and Juliet*. The room was also used for class listening periods by the Department of English.

The Projection Room, equipped with motion picture and slide projectors, was used on an average of sixty hours monthly by the teaching staff for illustrated lectures. It was also used extensively for special refresher and short courses, and for evening meetings by campus and over-town organizations. The Seminars were used 122 hours weekly for regular classes, as well as for moot courts, conference groups, evening classes, extension short courses, and campus study groups.

Visitors to the Library—The Rutherford Library continues to draw a stream of visitors throughout the year, to see the building and to visit the Art Gallery and Indian Museum on the third floor. These include visitors from other campi, school children in organized groups, interested citizens, parents of students, and tourists. On the Saturday and Sunday of Varsity Guest Weekend 1,600 people toured the building and smaller groups are shown over the building constantly.

Stock of Books

During the year, 7,793 new volumes were catalogued for the collection. This figure is less by some 1,600 than that for the preceding year, attributable to the strain of reclassification on the Cataloguing Department and to temporary staff shortages there. One thousand seven hundred and twelve worn or outdated volumes were withdrawn from the collection, giving a total of 148,917 accessioned volumes in the Library as of March 31, 1954.

It should be noted that much other material was added during the year which does not show in the accession record, including the Gonsett collection of Ukrainian literature, numerous long runs of journals not yet bound, documents and maps, and considerable material in microfilm form.

Report of the Library Departments

Order Department—Order work was maintained at its usual level this year, with the addition of numerous back files of periodicals approved for purchase by the Library Subcommittee. Five thousand and ninety-four volumes were received on order, and 1,059 received and acknowledged as gifts. Supplies ordered totalled 624 items.

The department continues to sort and process uncatalogued material which has been in dead storage for some 20 years or longer because of lack of shelf space. This is being checked, bound and catalogued as rapidly as the pressure of other work permits. An additional 1,000 volumes were processed this year, and hundreds of duplicates were either stored for replacement or set aside for exchange—a very dusty and time-consuming task.

New processes and routines for ordering have been set up, involving the use of multiform order slips, which will keep the files complete at all times, lessen the danger of duplication, and enable us to give quicker notification to the teaching departments regarding books they have requisitioned.

Cataloguing Department—This department normally consists of three professional cataloguers and three typists. At present it is augmented by an

additional cataloguer and an additional typist during the reclassification period. This year the Department was short one cataloguer for a three-month period.

As during the previous year, all activities of the Department were overshadowed by Reclassification. To date all bound periodicals in the Library have been reclassified, as well as the entire collections in the Medical and Applied Science libraries. Work is now progressing in the Main Stacks.

With the addition in 1952, to the regular staff, of student assistants equivalent to three and one-third full-time assistants, the work has progressed in a very satisfactory manner. Great credit is due to the Chief Cataloguer, Mr. Peel, and his first assistant, Miss Hicks, for their efficient organization and direction of the undertaking. To March 31, 1945, 43,702 volumes have been reclassified.

Reference Department, Periodicals and Binding—The function of a reference department is to direct the reader to information in books, documents, periodicals, maps and pamphlets, and to instruct him in the use of all the library's material through the use of indexes, bibliographies, lists, catalogues.

This department, consisting of three professional librarians and two clericals plus a number of student assistants, provides general reference service to faculty and students, including interlibrary loan service for the faculty. It is responsible for the microfilm and microcard equipment, maps, pamphlets and documents, and for the Rare Book Collection, including the Rutherford collection of Canadiana. It is also responsible for the ordering and circulation of current periodicals and the binding of books and journals for the entire library.

During the session 1952-53, the attendance in the Reference Reading Room was 64,899, as compared with 35,637 the preceding year. There was a further notable increase in the use of this reading room in 1953-54, when attendance was 86,532. There was a corresponding increase in requests for reference service and the circulation of special reference materials.

During the session 1952-53, the use of the Periodical Reading Room more than doubled, with an increase of 121% in attendance and 169% in circulation.

This past year has shown a further increase of 30% in attendance and 74% in circulation. Heavy use has been made not only of the current journals in the reading room, but of unbound back files in the stacks. This great increase in the use of journals is of particular interest since in the old library quarters the students had no direct access to them.

Until the Library moved to its new quarters in 1951, lack of space prevented the maintenance of a documents collection. In the past three years we have been engaged in setting up such a collection, and the building up of back files, as well as the acquisition of current documents, has gone steadily forward. This work requires a great deal of preliminary checking, listing, recording, stamping, and shelving of documents each week. Five thousand five hundred and eighty documents were processed this past year.

We are a depository library for F.A.O. material and receive it as published, as well as selected material from Unesco. Last year the Library purchased a complete set of United Nations Official Records, to which we are adding current records as published.

With the institution of courses in Geography this past year, our map collection is being greatly augmented. Two thousand six hundred maps were processed in 1953-54, with many more awaiting cataloguing or on order.

Last year a collection of University Archives was organized and has now been completed under the following heads: Theses; Staff Publications; Calendars; Examination Papers; Gateway Files; New Trail Files; Alberta Folklore Collection.

During the year a total of 1,696 current journals were received; 1,936 journals or books were bound or rebound.

General Circulation Department—This department, with a staff of two professional librarians, three non-professional graduates, and one clerical assistant, augmented by student assistants, is in charge of the Main Delivery Desk on the second floor, and of the Browsing Area and book collections there, as well as the Reserve Reading Room and the Stacks.

Circulation during the year from the Reserve Room was 36,014; from the Browsing Area, 1,659; from the Stacks, 27,988—a total of 64,570 as compared with 64,726 in 1952-53. It is to be remarked that circulation for the Winter Session was higher than that of last year, while there was a decrease in circulation in the Summer Session.

Attendance for the year was: Reserve Room, 61,725; Browsing Area, 18,353; Stack users, 6,989—a total attendance of 96,976 as compared with 78,676 of the preceding year.

The reclassification of the book collection has caused considerable inconvenience and dislocation in the circulation service during the past two years, owing to the temporary rearrangement of the books under two schemes. This has made it difficult for the staff to locate and to shelve books and has necessitated the expenditure of much time in helping stack users to locate the books they need. Now that the reclassification of Tier 6 of the Stacks (the Literature Section) has begun, a major shifting of the books on that floor has become necessary, which is being done this spring. It is hoped to have order restored and the new scheme set up by the fall.

Report of the Branch Libraries

Applied Science Reading Room—This reading room serves the Faculties of Agriculture and Engineering and the Department of Chemistry. The staff consists of the Applied Science Librarian, one professional librarian and one graduate assistant (both shared half-time with the Medical Reading Room) and a number of student assistants.

Circulation figures give no indication of the use actually made of the books, since most of the books and the current and bound journals are on open shelves. Circulation for use outside the building for the year was 9,533 as compared with 8,820 the previous year.

Circulation figures give no indication of how much busier this reading room was than last year. Reference questions have jumped from 528 to 894, many of them coming from research men outside the University staff, who come to the Library to use our Engineering and Industrial Art Indexes and our technical journals and who require much reference assistance.

Use of the Reading Room for study continues to grow, with an attendance of 32,616 as compared with last year's 29,815.

Law Reading Room—Service in this Reading Room is given by the Law Librarian, one part-time graduate assistant, and five student assistants. Use

of the Library was greatly increased during the past year. Attendance was 31,193, an increase of 27% over that of 1952-53.

Books in the Reading Room and the adjoining Law Stack Room are freely accessible to law students, so no figures for their use are available except for the comparatively small group of textbooks and journals which circulate for overnight use. Circulation of these was 4,616, an increase of 77% over last year. There was a 20% increase in reference questions answered.

In the summer of 1953 the Law Librarian attended a Law Librarian's Institute at the University of California conducted by the Librarian of the Columbia University Law School, where many problems connected with law library work were studied and resolved.

Medical Reading Room—This reading room serves the Faculties of Medicine and Dentistry and the Schools of Nursing and Pharmacy. Most of the books and current journals are accessible to readers on open shelves, so statistics give no information on their use in the Library.

Circulation for home use for the year was 15,240 as compared with 15,784 last year. The evening attendance of 3,644 showed an increase of 39%, and the daytime attendance of 17,341 an increase of 24% over last year. These statistics would seem to indicate that the circulation of books and journals outside the Library is levelling off after the very considerable increases of the past two years. On the other hand, the students are relying more heavily upon the Reading Room as their place of study.

During the year 3,976 items were circulated to medical and dental practitioners in the province, an increase of 14% for Edmonton doctors and 18% for those outside the city.

This year the reclassification of this collection was completed. The scheme used here is that of the U.S. Army Medical Library. The great advantage of this system is already apparent, even after so short a period of use. The medical men are much better satisfied to have the journals arranged in alphabetical order again, after a short experience of arrangement by subject.

Education Library—This Branch Library is housed in the Education Building at the south end of the campus and is staffed by the Education Librarian, one graduate and two clerical assistants, plus a number of student assistants.

In September, 1953, a former study room directly above the Education Library was converted to a Reserve Reading Room. For the first time, we have been able to provide a quiet and well-supervised place of study for the Education students, and such heavy use has been made of this room that we wonder what we did before we had it.

Circulation during the year was 43,127 as compared with 41,202 the previous year. Attendance increased to 30,199 from the 1952-53 figure of 11,399.

This year an Education Library Committee consisting of three members of the faculty, with the Education Librarian as Secretary, was organized to advise on the selection of books for the collection and on methods of improving and expanding library service.

For three weeks commencing May 23, 1953, the Education Building was the headquarters for a workshop on educational administration, which was sponsored by the Kellogg Foundation and carried out by the Canadian Education Association. More than fifty administrators and superintendents from the ten Canadian provinces participated. The group made extensive use of the Educa-

tion Library and of the many new books which were purchased for their use. An even larger number of delegates (74) will be in attendance at the 1954 session.

Calgary Branch—This library serves the students and faculty in Education, and Arts and Science. During the year 1,128 volumes were added to the collection, which at March 31, 1954, numbered 16,459 accessioned volumes.

During the year, the Branch Librarian, with one full-time clerical and six student assistants circulated a total of 17,272 books, journals and pictures, an increase of 2,838 over last year's figure. As this is an open-shelf library in which readers have direct access to the shelves, the use of the materials in the reading room is many times greater than this figure.

Attendance for the year was 40,035; reference materials used 2,662 items; interlibrary loan for members of the faculty, 102; current journals received, 77.

The Library Committee was reorganized this year and consists of two representatives from each of the faculties of Arts and Science and Education, with the Branch Librarian as Secretary and the Director and Assistant Director as members *ex officio*. This committee advises on the selection of books and journals and other aspects of library service.

Report of the Provost, Professor A. A. Ryan

Student Activities

The past year has seen little change in the number and variety of extra-curricular activities, although it is likely that their multiplication will pose new problems in the near future as attendance rises on the campus. The Scheduling Committee of the Students' Council, which meets in the spring to set dates for major events for the following year, has already more requests for such dates than can be granted. It has become the policy of the Committee to schedule most affairs for the same dates each year. Since the disappearance of the old class organizations, the clubs and societies representing the various faculties and schools have shown most vigor and are given preference in the scheduling of events on the campus. The Committee has always worked in conjunction with the Dean of Women and the Provost. This year the Director of Physical Education was invited to attend the meeting of the Committee and proved most helpful in resolving overlapping requests for the Drill Hall for social and athletic events.

Thanks to the fine fall weather, the very busy intramural sports program got off to an exceptionally good start this year, an important consideration with gymnasium facilities taxed to capacity. Once again both the men's and women's athletic teams have more than held their own in outside competition. After outclassing all opposition in their regular schedule, the men's senior basketball team unexpectedly lost a final series against U.B.C., who had been playing in a stiffer league. Just as unexpectedly, the Golden Bears' hockey team made a clean sweep of intervarsity hockey.

Student Government

During the past year the various student executives on the campus have continued to justify the freedom given them to manage their own affairs. A strong Students' Council, under the conscientious leadership of Mr. Doug Burns, has showed itself particularly mature and responsible. The executives of the

various faculty organizations and the residence house committees have continued to show a lively interest in promoting the social life of the campus.

It has become evident this year that a new and efficient pattern of student government is emerging to take the place of the old system disrupted and rendered inadequate by the sudden postwar expansion of the student body. Nothing has done more to make progress possible in this direction than the facilities provided by the Students' Union Building, especially since the building is not a heavy financial burden on the students. Next in importance to the concentration of Union affairs in one building has been the appointment of a permanent Secretary-Accountant. This full-time employee has proved invaluable in providing continuity from Council to Council and in assuring the prompt dispatch of the mounting business of the Union. For example, at the time of his appointment the Year Book had accumulated unpaid debts amounting to many thousands of dollars and was months late in publication. This year it appeared on time and with its financial affairs in order. The same businesslike attitude toward Union financing has been reflected in the budgeting by the Treasurer, Mr. Graham Ross.

This year has also seen the adoption of a completely revised and rewritten Students' Union Constitution. In recent years the much-amended Constitution had grown so bulky and self-contradictory as to be unworkable. A committee consisting of Tom Jackson and Jim Redmond removed the contradictions and reorganized the whole into a brief basic Constitution, a larger body of Bylaws and an appendix of Executive Regulations.

In preparation for next year, the University Athletic Board, which has operated independently since 1947, under the sanction of the Committee on Student Affairs, has been made a Committee of Students' Council. The Director of Physical Education will continue to act as chairman as in the past, and will in addition be responsible for the preparation of the budget of the Board. It is hoped that these changes will provide better continuity in the handling of the Board's finances and at the same time give the student body at large a more direct voice through the Students' Council in the control of campus athletics.

Public Relations

Under the able management of the students' Public Relations Officer, Mr. Bob Edgar, the three major public relations events of the year, the fifth annual Civic Banquet, the sixth annual Parliamentary Dinner, and the third annual Varsity Guest Weekend, were carried out successfully. The Weekend once again provided a focal point for the year's activities, with most of the faculties and clubs taking part. Attendance at the Weekend was somewhat below that of last year, but particular emphasis was placed on attracting senior high school students. To improve the liaison between students and administration and to give better continuity of effort, an advisory committee of the Weekend has been set up.

Fraternities and Off-Campus Organizations

The number of fraternities on the campus remains unchanged—eight men's and four women's. Tentative suggestions that professional fraternities be allowed on the campus have not been received favorably by the Advisory Committee on Fraternities and Residential Clubs. The University has, on the other hand, welcomed the opening of the fine Religious Institute Building adjacent to the campus by the Church of Jesus Christ of Latter Day Saints.

University Residences

In spite of the fact that it is possible to admit only about one hundred upperclassmen each year because of the large numbers of freshmen applicants, the residences continue to exercise a stabilizing influence on campus life. The Wardens report satisfaction with the conduct of residence life by the men's and women's house committees under the chairmanship of Miss Dorothy Olsen and Mr. Max Adkins. The popularity of the residences is attested by a waiting list of several hundred names.

Discipline

Not only has there been no disciplinary problem in the residences during the past session, but for the third successive year the Disciplinary Committee of the Students' Union has not been called upon to adjudicate a single case of student misbehavior.

Report of the Dean of Women, Miss Maimie S. Simpson

Interviews

1. Pre-Session. On Saturdays and after the close of school in June, girls came to discuss University entrance. After the interview in most cases, they were directed to Student Advisory Services, the Deans of the Faculties, or the Heads of Departments. Appointments were made for them. In two or three cases summer employment was found for them to assist them financially to enter the University.

2. Opening of Session.

(a) Financial assistance

(i) in private homes to work for room and board;

(ii) babysitting (with regularity);

(ii) student assistants in the Library (Rutherford and Education).

(b) Finding accommodation for a considerable number of girls who either had no place to live or who had an unsuitable place.

3. During the Term.

(a) Requests to discuss change of courses. Each girl was sent eventually to the Student Advisory Services and to the Dean of her faculty.

(b)) To discuss difficulties in certain courses. Instructor contacted; interview for the girl arranged, with satisfactory results in nearly every case.

(c) Emotional Difficulties. If thought sufficiently serious, Student Advisory Services, Deans of Faculties, and Medical Services were called in. One difficulty is that the cases are sometimes not drawn to our attention when they should be. Often all that the young woman needs is the opportunity to chat to an older person and to be reassured of a certain amount of security.

Extracurricular Activities

1. As in previous years, a considerable number of dances, both formal and informal, were attended upon invitation from the students.

2. The Social Hour. All first-year women were entertained at the Coffee Hour in Pembina Hall. These very informal gatherings of twenty girls at a time are a very satisfactory means of allowing the girls to know the Dean of Women better, and a wonderful opportunity for her to know the girls.

Student executives, including the Macleod Club, were entertained when making plans for special functions.

Graduating Medical women and honors students in the Faculty of Arts and Science were entertained at tea.

The Wauneitas. Close relationship was maintained with the Wauneita Society, a group whose executive on so many occasions is called upon to be hostesses. The Lounge has been long enough in use now to make social functions held in it run smoothly, less time being required for actual planning of these functions.

To Miss Catherine Robertson, the President, and her excellent Executive we owe a debt of gratitude, for without them it would often be very difficult for the Students' Union to be good hosts and hostesses.

The monthly meetings of Panhellenic were attended at the request of the fraternity women.

The University Mixed Chorus was again accompanied on its trip to Calgary and will be accompanied on its Spring Tour to central and southern Alberta, commencing May 3rd.

The Infirmary

All women students confined to the Infirmary were visited at least once, reading material supplied, and a short note was sent to mothers if requested by the girls.

Lectures

Dr. Ross Vant again gave his much-appreciated three-lecture series to the first-year women; the average attendance was about one hundred.

Public Relations

Twenty talks were given during the year. Of these, one was in Calgary, one at Elk Island Park, one at Bremner, the rest in Edmonton to service clubs, Home and School Associations, church groups, high school groups and the like.

One broadcast was given over CKUA and three Christmas broadcasts over the western network of the CBC.

Report of Dr. A. J. Cook, Director, Student Advisory Services

The year has been characterized by a steady, year-round pressure of business due to the increased recognition of the availability of the services.

The Director attended the Conference of the Canadian University Counselling and Placement Association held in London, Ontario, in June, 1953. This association is still in its infancy, but provides a useful medium for exchange of ideas.

Visits to high schools were carried out during March, April and May. Some use was made of undergraduate students, and the reports from principals about student presentations were favorable. School visits, whether as part of panel groups on Career Days or as individual visits, are a necessary part of the information service which the University must expect to provide. The School Guidance Services are developing, but in many schools they are still embryonic. The school principals and teachers feel the need for these visits. They support the school effort. The impending growth of the University will render this liaison with the schools all the more necessary. In this connection, the role of the home-school associations needs attention. Parents need information also.

The passing of the Student Assistance Act by the Provincial Legislature in the spring of 1953 means that financial aid for deserving students has been given further support. The administration of the Act by two associated committees working together, one within the Department of Education and the other within the University, was developed through the summer and winter months. Despite the limited publicity last spring, the amount of financial aid rose this year over the previous year. It is the avowed aim of the University Administration to see that deserving students without sufficient financial means are enabled to obtain university education. There is still need for substantial scholarships for top-quality students and good scholarships for able students. The Director is continuing the study initiated by President Stewart two years ago; what happens to the students who complete high school matriculation with averages of 70% or better?

The pressure on the Department was steady throughout May until the opening of the session; correspondence and interviews with prospective students, the recounselling of students whose performance in the previous session was deemed unsatisfactory, non-resident housing for Summer School, for Medical and Dental students who register in the first week of September and for students registering later in the same month.

The arrangements for Freshman Introduction Week ran into certain difficulties last year. As a result, recommendations have been made and a sub-committee of the Committee on Student Affairs is being formed to supervise the planning of the program for Introduction Week.

The Study Tutorials which were introduced a year ago for students who found the going hard in the first term were continued this year for first-year Engineering students. In addition, a questionnaire was used for all new students having difficulty with their studies. It is hoped to make some analysis of the use of the study tutorial plan on the basis of the questionnaires and examination results.

The increasing pressure of the Department has necessitated adding a second stenographer to the office staff.

Report of Dr. P. S. Warren, Chairman of the Committee on Physical Education

The following is a summary of intramural and intercollegiate activities for the year 1953-54 from the Department of Physical Education.

Men's Intramurals

The Men's Intramural Program had a very successful year but again was hampered with the lack of facilities and space. The following sports were offered in the fall program: golf, tennis, track and field, cross-country, touch football.

A new event was added to the program this year and was known as "Frontier Day". This day is in the theme of the old West and events such as log rolling, wood chopping and bucksawing are presented. The first annual Frontier Day was held in the middle of November and proved to be so popular that the Intramural Administrative Board is considering making this the largest event on the intramural program for the year.

The winter program consisted of basketball, volleyball, badminton, hockey and table tennis. It was necessary to limit the number of badminton participants in order to finish a proper tournament, because of lack of facilities.

There were approximately 1,600 participants in the Men's Intramural Program. However, some of these participated in more than one activity.

In addition to activities taking place in the Men's Gymnasium, the Intramural Department supervised activities in the men's residences, St. Stephen's College and St. Joseph's College. Sports directors for these aforementioned residences reported regularly to the Intramural Director. Mr. Walter Goos ran the sports program for the students of the Faculty of Education at the Education Building, and again they made use of the facilities to the maximum.

Women's Intramurals

The Women's Intramural Program was under the guidance of the Women's Athletic Association and under the direction of Miss Jocelyn Smart, a fourth-year Physical Education student. With this full-time assistance, the program was enhanced and an increase in participation was noted from 316 to 677. Events included tennis, golf, track and field, fastball, volleyball, table tennis, badminton, curling, basketball and swimming.

Intercollegiate Athletics

In April, 1953, the University of Alberta Golden Bears were Dominion finalists and played the Toronto Tri Bels for the Dominion championship. The series was the best of five games and was decided on the last game. In 1953-54 the Golden Bears were again champions of the W.C.I.A.U., defeating both Saskatchewan and Manitoba for the title, and were also the provincial senior men's champions, being undefeated in competition.

Report of Dr. John W. Scott, Director of Student Medical Services

During this session there have been no major epidemics. Fortunately only a relatively small number of students developed poliomyelitis and only one showed evidence of paralysis. No respirator cases occurred among the students. During the past few weeks we have had a number of cases of mumps in the Infirmary. Through the Registrar's office, however, we have been able to arrange that these students write their final examinations so that their year will not be affected.

We have appreciated the extension of the waiting room in the Infirmary. It is desirable at the moment that the furniture in this room be replaced. The Bursar is giving some consideration to this matter.

The major activities of the Student Medical Services are outpatient consultations and treatment at the Infirmary. This has been carried out as in previous years under the very able direction of Dr. J. F. Elliott, Dr. M. M. Cantor, Miss G. A. Revell and Mrs. J. H. Ward. We are finding that the cost of hospitalizing patients in the University Hospital accounts for a larger sum each year and contributes to our deficit.

The Student Medical Services now offers fairly complete facilities for diagnosis and treatment and year by year has been expanding the consultation services offered. The examination of incoming freshmen, together with chest x-rays, has been carried on as in previous years.

Staff Education

The Matron and Assistant attended the A.A.R.N. Convention in Banff. The Matron attended part of the Institute on "Team Nursing" in March, 1954. No one attended the "Civil Defence" or "Nursing Poliomyelitis" courses.

Medical Service Staff, 1953-54

Director, Dr. J. W. Scott; Infirmary Physician, Dr. J. F. Elliott; Assistant Physician, Dr. M. M. Cantor; Gynaecologist, Dr. M. Hutton; Psychologist, Dr. S. Spaner; Dr. Carson.

Infirmary Staff

Matron, Miss G. A. Revell, R.N.; Assistant, Mrs. J. H. Ward, R.N.; Relief Nurse, Mrs. H. M. Vango, R.N.; Nurses' Aide, Miss A. I. Folden; Housekeepers, Mrs. Bergen, Mrs. Cossentine, Miss J. McLaren; Relief Housekeepers, Mrs. D. Hawkin, Mrs. G. M. Bullock and others.

Report of Radio Secretary, Miss Margery W. Mackenzie

Interest in radio was stimulated early in the fall through a successful two-day conference on radio techniques, attended by approximately sixty-five faculty members. A study of script preparation was directed by Mr. David Walker, Senior Talks Producer of the Canadian Broadcasting Corporation, Prairie Division, and a study of microphone techniques by Mr. Douglas Homersham, Director of Special Services, Radio Station CJCA, Edmonton. The conference concluded with a discussion on "Radio and Education—The Role of the University", led by a panel of speakers drawn from the field of professional radio and from the University faculty.

Between the middle of October and the end of March, the University presented twelve regular program series over Radio Station CKUA. These programs, presented during the early evening hours, Monday through Saturday, represented ten hours a week of broadcasting and constituted, over the five and one-half month period, a total of 338 separate programs. One hundred and forty-three of these, representing one hour each evening, were programs of recorded classical music. The remaining 195 programs were prepared and presented by faculty members of the University. They included series dealing with science, art, drama, music, literature, educational research, and the work of the University both within its walls and throughout the province. The one new faculty-sponsored program this year was *Art in Everyday Life*, presented by the Department of Fine Arts in conjunction with the Edmonton Museum of Arts. As a convenience to the broadcasters, almost all of the programs were recorded during the day for evening presentation.

Music programs have included the *Music Hour*, broadcast five times a week; the *Western Board of Music* program, consisting of recitals by Edmonton musicians; *Music of My Choosing*, during which faculty members played and commented on music of their personal selection, and a new program of light classical music, *Saturday Evening Concert*. The introduction of this last-mentioned program, which is broadcast from 8 to 9 o'clock, was prompted by the dearth of good musical programs on Saturday evenings. As a result of the favorable reception that has been accorded to it, this series, as is the case with the *Music Hour*, is to be broadcast throughout the entire year.

The addition in 1952 of a Program Producer to the staff of Radio Service has resulted in an improvement in the quality of the regular program series and has made possible this year the broadcast of fifteen additional programs and special events. These have included interviews with such visiting artists and speakers as Mr. Eric Newton, Mr. Ross Pratt, Professor Joseph Smith and Mr. Robert McFerrin, and the broadcast of such events from Convocation Hall

as the concert of the Mixed Chorus and an organ recital for the Western Board of Music program by Mr. Arthur Crichton.

Approximately seventy students have contributed in some direct way to the Thursday evening programs sponsored by the Student Radio Society. Student program series have included regularly presented campus news broadcasts as well as *Talent from the Campus*, which featured student musical artists, and *My Country*, a series of interviews with students from foreign lands. The Radio Society is given assistance by the staff of Radio Service, and from time to time some of its members are employed as the regular announcers for all University broadcasts.

During the University term all programs are broadcast from the campus studios. The spring and summer music programs, however, are prepared at Radio Service but broadcast from the studios of CKUA in the Provincial Building.

Programs have continued to be publicized by printed schedules, "The University of Alberta—On the Air". Eight of these have been printed in the course of the year and about 2,500 copies of each have been made available to interested listeners.

In an effort to obtain the opinions of some of the listeners in regard to the University programs, a questionnaire was sent in March to 1,001 persons on the regular mailing list. Four hundred and three replies were received, representing the very gratifying response of two out of every five persons. Comments in regard to all of the twelve program series, as well as the rating each was given, indicate that all University programs have a good audience of frequent or occasional listeners. The various music programs and the series, *Great Literature*, were chosen to attract the largest number of listeners. The *Music Hour*, by far the most popular program, was shown to have a very large audience of regular listeners. Criticisms, comments and suggestions for new programs were invited in the questionnaire, and the co-operative response of listeners to this invitation is providing valuable assistance to the Radio Service staff and the program conveners in planning the programs for 1954-55.

Report of Professor R. S. Eaton of the Western Board of Music in Alberta

Statistics and Estimates (Candidates and Fees)

In February, May and June of 1953, the following figures apply:

Candidates	February	May	June	Total	Fees
Practical	82	.....	931	1,013	\$ 874.50 (February)
Theoretical	272	345	.....	617	4,740.75 (May, June)
				<hr/> 1,630	<hr/> \$5,616.25

This shows an increase of 237 candidates and an increase of \$1,798.00.

Revenue from sale of theory papers (Dec. 1, 1952, to Nov. 30, 1953), \$21.88. This shows a decrease of \$10.89 over a similar period last year.

Centres

(a) Practical:

February, 1953: Edmonton, Calgary, Red Deer.

June, 1953: Blairmore, Bonnyville, Bowden, Calgary, Camrose, Cardston, Chauvin, Dawson Creek, Donnelly, Edmonton, Falher, Fort Kent, Girouxville, Glendon, Grande Prairie, Hythe, Innisfail, Lacombe, Lethbridge, McLennan, Peace River, Pincher Creek, Red Deer, Ry-

croft, St. Paul, Spirit River, Sundre. (N.B. Italicized centres new in 1953.)

(b) Theoretical:

February, 1953: 28 centres.

May, 1953: 29 centres.

Examiners for Practical Examinations

Mr. Filmer Hubble, Winnipeg; Mr. Stanley Shale, Victoria; Mr. Ronald Gibson, Winnipeg; Miss Frances Port, Winnipeg; Mrs. Dorothy Hare, Calgary; Mrs. Beulah Doney, Edmonton; Mr. Leonard Leacock, Calgary; Mr. Douglas Millson, Edmonton; Mr. E. A. Moore, Edmonton; Miss Lillian Kester, Edmonton; Mrs. Dorothy Langmo, Calgary; Mr. Keith Bissell, Edmonton; Mr. A. B. Crighton, Edmonton; Mr. R. S. Eaton, Edmonton.

Diplomas Granted

Spring Convocation—A.Mus.: Ruth Alda Anderson, Aileen Marilyn Hartwig, Alexandra Munn.

Fall Convocation—L.Mus.: Dale Bartlett, Rosemary Holsworth, Alexandra Munn; A.Mus.: Francine Russell.

Broadcasting

Once again local teachers have agreed to assist with the programs illustrating pieces from the syllabus, and we were pleased to present the following well-known Edmonton teachers and musicians: Miss Ruth Chennells, Mrs. Beulah Doney, Miss Rosemary Holsworth, Miss Marguerite Jacobs, Miss Lillian Kester, Miss Doreen Stanton and Mr. Edgar Williams. One broadcast, illustrating trio music, was given by Mr. Bruce Hanson, Mr. Kurt Traxel and Mr. Arthur Crighton. Another was devoted to recordings of selections from the flute and clarinet syllabi.

Recitals

Regional recitals and presentations of awards were held in six centres during October and November, 1953, and young visiting artists again contributed much to the programs. Centres in which recitals were presented were: Edmonton, Calgary, Lethbridge, Red Deer, Grande Prairie and Fort Kent. The guest artists were Miss Lynn Newcombe, Miss Ellen Smith, Miss Rosemary Holsworth and Mr. John Wallin of Edmonton, and Miss June Daley and Mr. Victor Harbidge of Calgary.

Scholarships, Bursaries, Prizes

In 1953, awards totalling about \$5,000 were made to outstanding students. The Government of Alberta again contributed \$1,000 in the form of ten bursaries. Twenty-eight silver medals were awarded.

The following new or revived awards were made in 1953: Four music bursaries at \$50 each were given by the Western Board of Music, and remission of fees to the total of \$100 for seven students was also from the Western Board of Music. Edmonton section of the National Council of Jewish Women gave a \$25 bursary. The Canadian Nazarene College gave two prizes of \$15 instead of one; the Glendon Board of Trade and Mrs. E. B. St. Jean of Rycroft each gave \$5 prizes, and the Rycroft Home and School Association gave two prizes of \$10 and \$15.

Advisory Services

This service is being continued, and the extra time devoted to this work seems to be appreciated, particularly by rural teachers.

Report of Major G. W. Reed, Officer Commanding, University of Alberta Contingent, Canadian Officers' Training Corps

During this academic year the officers of the Contingent were Lt. Col. H. J. Bishop CD, Major G. W. Reed, Major H. C. S. Archbold, Captain A. T. Elder, and the Resident Staff Officer, Major R. C. W. Hooper CD. Col. H. A. Dyde, OBE, MC, QC, was appointed Honorary Colonel.

It is with deep regret that the death of Lieutenant Colonel H. J. Bishop CD, on 13th December, 1953, is reported. This officer was extremely competent and hard working, and during the short time in which he had command of the Unit introduced many effective ideas to assist in the problem of recruiting. On the death of Lieutenant Colonel Bishop, Major G. W. Reed assumed command of the unit.

During the summer of 1953, twenty-nine Lieutenants and Officer Cadets took their practical training course. One Second Lieutenant took his third practical training in Germany with the 27th Canadian Infantry Brigade. (One Second Lieutenant and two Officer Cadets will be training in Germany in 1954.) Of those training in Canada in 1953, Second Lieutenant K. E. Leslie won the Honour Cadet Shield as the best all-round cadet at the Royal Canadian Dental Corps School. This is the second year in succession that this award has been won by a member of the University of Alberta Contingent.

During the 1953-54 session there was a marked improvement in recruiting. Thirty-three first-year cadets enrolled during this period as compared with nine in 1952-53. In addition, eleven first-year cadets were enrolled under the Regular Officer Training Plan and took their training with the Contingent. The actual number of cadets taking part in the theoretical training given during the winter of 1953-54 was thirty-three in the first year, ten in the second and four in the third year. In addition, two officer cadets in the second year and four officer cadets in the third year, who were enrolled in the Regular Officer Training Plan in 1952-53, trained with their respective theoretical phases.

In order to give professional students a better understanding of the Army and careers open to them as Army Officers, programs were arranged for some of the professional Undergraduate Societies. At the November meeting of the Engineering Students' Society, Colonel J. B. Jones, OBE, CD, Chief Engineer of the Canadian Army for Army Headquarters, Ottawa, gave a very interesting lecture on military engineering, illustrated by a film. During the same month, the Dental Undergraduates' Society was addressed by Lieutenant Colonel F. J. McLean, CD, DDS, Command Dental Officer of Western Command. Lieutenant Colonel McLean's address concerned careers open to Army Dentists and included a display of equipment used in mobile dental clinics. At the December meeting of the Medical Undergraduates' Society, Colonel E. J. Young, OBE, CD, Command Medical Officer of Western Command, conducted a very interesting program of talks and films on the treatment and evacuation of casualties. Two Medical Officers recently returned from Korea, Major J. S. Evans and Major H. W. Greenidge, read short papers on the treatment of casualties and diseases encountered in that theatre of operations. An additional paper, illus-

trated by films, was read by Major W. L. L. Bennett on Atomic, Biological and Chemical warfare, drawing attention to the medical problems raised by the use of these weapons. These programs were very well received by all of the Undergraduate Societies and it is proposed to carry out a similar program next winter.

The first-year cadets received a course of lectures conducted by Contingent Officers on the subjects, "Introduction to the Army" and "Current Affairs". A course of lectures for the second-year cadets was given in Military Law, Organization and Administration and Military Writing. Subjects taken by the third-year cadets included Military History by Dr. D. E. Smith and Military Geography by Dr. W. C. Wonders. In addition to regular lectures, cadets were taken on visits to the North West Territories and Yukon Radio System and to 17 Regional Ordnance Depot, RCOC. Indoor rifle shooting was also carried out during the winter. A Current Affairs discussion period for all cadets was carried out once each month.

The year's outstanding social event was the very successful and well-attended Tri-Service Ball held in February at HMCS "Nonsuch".

Report of W/C L. E. Gads, Commanding Officer of University of Alberta Squadron, R.C.A.F.

Flight Cadets and Pilot Officers returned to the University of Alberta Squadron during the first three weeks of September, 1953, after having spent a successful summer of training at R.C.A.F. Regular Force Units. W/C L. E. Gads and F/O A. B. Weston also returned from training duties at R.M.C. Kingston and R.C.A.F. Station Clinton, respectively. F/L A. R. McAlpine was transferred to the Squadron from 435(T) Squadron to assume Resident Staff Officer duties from F/L R. A. Wallace, who had been transferred to Tactical Air Command.

As in the past, recruiting for the U. of A. Squadron commenced during University registration and continued until the end of January, 1954. During this period eighteen Flight Cadets were enrolled in the Squadron, including five students in the Regular Air Force Training Plan, one as F/C Serving Airman, and four female and eight male students in the University Reserve Training Plan. Additionally, one third-year cadet was accepted into R.O.T.P. from U.R.T.P.

The present recruiting policy indicates a marked increase in students who receive complete financial subsidization for their University training from the R.C.A.F. Indications are that the subsidization plan of R.O.T.P. may increase during future years. In addition to the subsidization under R.O.T.P., F/C W. Swensson-Rosenquist, who had formerly acted as orderly room clerk at the R.C.A.F. Orderly Room, is now being sponsored for University Engineering Training as a F/C Serving Airman.

During the 1953-54 academic year, four graduates from R.M.C. and now members of the R.C.A.F. Regular are being sponsored by the R.C.A.F. to attend the U. of A. for a fifth University year to obtain Engineering degrees. This policy will likely be continued, as many of the present R.O.T.P. candidates are attending Canadian Service Colleges and will likely be sponsored for one year at a civilian university.

The training program throughout the winter included lectures from members of the University staff as well as many lectures from other civilian and service speakers. Sixty-four hours' training was provided for each of the first, second, and third-year cadets. This is the maximum number of hours available for pay entitlement for U.R.T.P. There was a good attendance of students at all lectures and the training critique submitted by third-year students indicated the program to have been very successful.

Among the highlights of the winter activities were the R.C.A.F. band concert, the Tri-Service Ball, and the Remembrance Day Service. First-year cadets had the opportunity of a visit to R.C.A.F. Station Edmonton, where they had lunch in the officers' mess and a return airlift to Calgary in a C119 Flying Boxcar of 435(T) Squadron.

On the third of March, U. of A. Squadron enjoyed a visit by Staff Officers of R.C.A.F. Training Command Headquarters at Trenton, Ont. G/C Greenway, the Senior Personnel Staff Officer, and G/C Newson, the Senior Air Staff Officer, and their advisers were guests at a small informal dinner on the campus. The visiting party held discussions with the staff and student members of the squadron.

Of the present strength of seventy-two student members of this squadron, fifty will be taking summer training at R.C.A.F. Units throughout Canada and Europe. The remaining twenty-two will be graduating. Four Pilot Officers have been posted overseas to the United Kingdom, France and Germany. Other members of the squadron will be continuing with Aircrew, Technical and non-Technical Training at Units in Canada. W/C L. E. Gads, F/L A. R. McAlpine and F/O A. B. Weston have been posted to the instructional staff at the Reserve Officers' School at R.M.C., Kingston.

Report of Lt. Comdr. (L) R. E. Phillips, Commanding Officer of the University Naval Training Division

Training commitments during the summer of 1953 caused a change in the locations for summer training. Thirteen first-year Cadets completed their training at H.M.C.S. Stadacona, Halifax, N.S., and thirteen second- and third-year Cadets received training at the West Coast.

Fifteen new-entry Cadets out of seventeen recruited were passed by a Selection Board, held in January, 1954. During the winter seven third-year Cadets were recommended for promotion to Sub-Lieutenant and seven Cadets were discharged. The present strength of the Division is as follows: First year, fifteen Cadets; second year, thirteen Cadets; third year, seven Cadets.

No Naval Cadets under the R.O.T.P. were in attendance at this University. Former Sea Cadets who joined the U.N.T.D. received five scholarships from the Navy League of Canada.

The officer employment for the year consisted of the Commanding Officer, a Staff Officer and six other officers. Five of these officers were full-time University students who have received commissions through the U.N.T.D.

Extracts from the Report of the Director of the Department of Extension, Mr. Donald Cameron

Members of the University staff gave an estimated 935 lectures to audiences of over 70,000, and 164 radio talks, during the year under review.

Extension short courses, classes and conferences have grown considerably in number over several years. During this year, 116 courses were offered at thirty-one centres. Aggregate attendance was 4,960 and, on the average, each involved between thirty and thirty-five hours of class time. The subject matter ranged from the arts, through business and professional studies, various University credit classes to leadership skills and technical problems in industry.

The program of credit and non-credit evening classes formed an important part of the Department of Extension's offerings during the year. Twelve hundred students were enrolled in thirty non-credit and nine credit classes organized in Edmonton, Lethbridge and Calgary.

The new program of management training included a six-week session in Advanced Management and a two-week course in Executive Development in which a total of nearly a hundred executives from across Canada enrolled. The need for this type of training and the growing support accorded this program is indicated by the rapidly increasing number of applications received.

There has been a considerable expansion in the field of leadership training, particularly in rural Alberta. The University, in co-operation with farm organizations, co-operatives and community groups, has conducted a number of courses and schools with the end in view of stimulating and assisting leaders in farm communities. Indications of success in this program are apparent in the follow-up work done by members of the staff.

Book stock in the Extension Library now stands at 37,000, not including 6,000 pamphlets and periodicals. General circulation has increased over the last year with open-shelf distribution at 53,000 and travelling libraries at 490, the latter serving communities not only in Alberta but in the Northwest Territories.

Circulation figures in the film library show an increase over the previous year, 21,000 reels in all being sent out. Although more community organizations now own their own library of filmstrips, the demand on the Visual Instruction Division for these teaching aids has grown. Circulation of slides has declined in consequence. Apart from film and filmstrip distribution, the Division has been responsible for promoting effective use of visual aids and the circulation and servicing of equipment. A marked increase in the number of films deposited by business organizations and the National Film Board for use has facilitated the work of the Division.

During the year the Petroleum Industry Training Service, which works in close co-operation with government and industry, provided training at convenient centres for 600 persons in technical subjects. An important aspect of the work of the Service lies in safety training and the development of attitudes more conducive to safe operating procedure.

The 1953 session of the Banff School of Fine Arts, both in terms of its enrolment, 535, and its program, was a substantial success. The recently completed Administration Building provided a handsome setting for the School's traditional Festival Week of recitals and performances. Supplementing the Summer Session was the usual program of practical aid through the Extension specialists in Music and Drama. Thirty-one courses in the fields of painting, music and drama were offered at twenty-seven centres to an aggregate enrolment of over 800 students.

GENERAL STATISTICAL SURVEY

Lectures

University teaching staff	658	
Department of Extension staff	277	
	<hr/>	935
Aggregate attendance		71,027
Number of radio talks:		
Extension staff	38	
Regular teaching staff	126	
	<hr/>	164
Conferences and short courses, Table II		4,960
Studio Theatre attendance		6,184
Feeders' Day attendance	700	
Breton Field Day	400	
Youngstown Field Day	100	
	<hr/>	1,200

Visual Instruction

Number of sets of standard slides sent out	24	
Number of 2x2 slides sent out	229	
Number of times slides were used	188	
Total audiences viewing slides		6,850
Sets of filmstrips sent out	1,977	
Individual filmstrips sent out	4,255	
Number of times filmstrips were shown	2,752	
Total audiences viewing filmstrips		98,160
Sets of silent films sent out	267	
Sets of sound films sent out	4,745	
Number of reels of sound films sent out	20,205	
Total number of reels of moving picture films sent out	21,214	
Total sets of moving picture films sent out	5,012	
Total number of showings of films, sound and silent	6,618	
Total audiences viewing films, sound and silent		475,193
Number of times projection services supplied	372	

Library and Debating Service

Number of travelling libraries in use	490	
Number of times sent out—		
Regular libraries	104	
Special libraries	386	
Recorded circulation		30,418

Open-Shelf Circulation

Books:		
Adult	40,855	
Juvenile	14,387	
Banff School	6,419	
Plays	1,817	
Periodicals and Pamphlets	3,472	
	<hr/>	66,950
Number of package libraries for debaters sent out ..		24

Study Group Material

Number of Citizens' Forum bulletins sent out	1,401
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New Canadian Plays

Number of copies of New Canadian Plays sold	460
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Publications

Press Bulletin, Seasonal Notes	10,000	
Press Bulletin, Feeders' Day Program	4,000	
		14,000
Agricultural Bulletins sent out during year.....	23,991	
Mimeos, circulars and other bulletins sent out	400	
		24,391
Total number of bulletins distributed since inception of service	586,037	
The New Trail, number sent out		12,560

RECAPITULATION

Total aggregate attendance at lectures, conferences, schools and short courses, filmstrip programs, slides, moving pictures, Studio Theatre, field days	663,574
Total circulation of travelling library books, open shelf, package libraries for debaters, Citizens' Forum bulletins, New Canadian Plays.....	99,253
Total circulation of press bulletins, agricultural publications, The New Trail	50,951

CONCLUSION

This forty-first annual report marks the end of a productive year in Extension activity and one which reflects credit on the University staff and those private organizations and individuals whose co-operation made the program possible.

University extension is essentially a co-operative endeavour. It represents a partnership between professional educational leadership and the countless individuals and organizations in the community who do the community's work. To be successful, there must be a constant two-way communication between each of the participating agencies, directed to the end of satisfying expressed and discovered needs. It is a source of gratification to the University that each year an increasing number of individuals, groups and organizations are coming to look upon it as an essential partner in the development of their programs. Out of that relationship there is developing a mutual confidence and respect based upon understanding of the role of each. Out of that relationship we are developing a University whose roots draw strength and sustenance from every segment of the community. The University in return provides inspiration, stimulus and a challenge to those who share its tasks.

The complete Annual Report on Extension Activities of the University of Alberta for the year ended March 31, 1954, which includes a report on the 1953 session of the Banff School of Fine Arts, is available in printed form.

Table II—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension

Course, Class, Conference	Sponsor	Place	Period	Hours' Duration	Attendance
1. Beginner's Ukrainian	Department of Extension	Edmonton	Oct. 19 - Dec. 21	15	16
2. Intermediate Ukrainian	Department of Extension	Edmonton	Oct. 19 - Dec. 21	15	18
3. Music Appreciation II	Department of Extension	Edmonton	Oct. 19 - Dec. 21	15	14
4. Beginner's Russian	Department of Extension	Edmonton	Oct. 13 - Apr. 1	80	20
5. European History—Napoleon	Department of Extension	Edmonton	Oct. 13 - Dec. 15	15	8
6. Effective Reading—Section I	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	50
7. Effective Reading—Section II	Department of Extension	Edmonton	Oct. 19 - Jan. 11	15	54
8. Ukrainian Literature	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	24
9. Comparative Religion	Department of Extension	Edmonton	Oct. 14 - Dec. 16	15	31
10. Petroleum Law	Department of Extension	Edmonton	Oct. 15 - Dec. 17	15	84
11. Income Tax Problems in Business	Department of Extension	Edmonton	Oct. 16 - Dec. 18	15	33
12. Conversational French—Section I	Department of Extension	Edmonton	Oct. 16 - Dec. 18	15	21
13. Conversational French—Section II	Department of Extension	Edmonton	Oct. 13 - Dec. 15	15	17
14. Public Speaking and Chairmanship—Section I	Department of Extension	Edmonton	Jan. 25 - Apr. 5	15	23
15. Public Speaking and Chairmanship—Section II	Department of Extension	Edmonton	Jan. 25 - Apr. 5	15	18
16. Sight Singing and Ear Training	Department of Extension	Edmonton	Jan. 25 - Apr. 5	15	11
17. Contemporary Philosophy	Department of Extension	Edmonton	Jan. 26 - Mar. 30	15	44
18. Clothing and Design	Department of Extension	Edmonton	Jan. 26 - Mar. 30	15	31
19. Law for the Layman	Department of Extension	Edmonton	Jan. 26 - Mar. 30	15	52
20. Music Appreciation I	Department of Extension	Edmonton	Jan. 27 - Mar. 31	15	32
21. World Affairs	Department of Extension	Edmonton	Jan. 27 - Mar. 31	15	19
22. Legal—Administrative Problems in the Oil Industry	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	67
23. Effective Writing	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	57
24. Landscaping the Small Lot	Department of Extension	Edmonton	Jan. 28 - Apr. 1	15	42
25. Conversational French—Section I	Department of Extension	Edmonton	Jan. 29 - Apr. 2	15	13
26. Conversational French—Section II	Department of Extension	Edmonton	Feb. 2 - Apr. 2	15	14
27. Effective Reading	Department of Extension	Calgary	Feb. 1 - Apr. 5	15	61
28. Law for the Layman	Department of Extension	Calgary	Feb. 1 - Apr. 5	15	51
29. Effective Writing	Department of Extension	Calgary	Feb. 2 - Apr. 6	15	34
30. Income Tax Problems in Business	Department of Extension	Calgary	Feb. 2 - Apr. 6	15	28
31. Real Estate Principles & Practice	Dept. of Extension and Alberta Real Estate Association	Calgary	Nov. 17 - Mar. 30	34	173
32. Real Estate Principles & Practice	Dept. of Extension and Alberta Real Estate Association	Edmonton	Nov. 18 - Mar. 31	34	172
33. Real Estate Principles & Practice	Dept. of Extension and Alberta Real Estate Association	Lethbridge	Nov. 16 - Mar. 31	34	46
34. History 10	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	28
35. Education 576	Dept. of Extension and Society of Industrial and Cost Accountants	Edmonton	Oct. 6 - Apr. 9	75	15
36. Accounting I	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	27
37. History 58	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	27
38. Mathematics 42-5	Department of Extension	Edmonton	Oct. 6 - Apr. 9	75	15

Table II—Continued

Course, Class, Conference	Sponsor	Place	Period	Hours' Duration	Attendance
39. Education 326	Dept. of Extension and Society of Industrial and Cost Accountants	Calgary	Oct. 6 - Apr. 9	75	17
40. Accounting I	Department of Extension	Calgary	Oct. 6 - Apr. 9	75	12
41. Household Economics II	Department of Extension	Lethbridge	Oct. 6 - Apr. 9	75	18
42. History 10	Department of Extension	Lethbridge	Oct. 6 - Apr. 9	75	15
43. Community Art Classes	Medicine Hat Art Club	Medicine Hat	Oct. 23 - Mar. 27	48	65
44. Community Art Classes	Lethbridge Sketch Club	Lethbridge	Oct. 29 - Mar. 12	72	59
45. Community Art Classes	Brooks Sketch Club	Brooks	Oct. 22 - Mar. 5	12	10
46. Community Art Classes	Red Deer Art Club	Red Deer	Oct. 16 - Mar. 10	80	35
47. Community Art Classes	High River Sketch Club	High River	Oct. 31 - Mar. 13	36	25
48. Community Art Classes	Lacombe Art Club	Lacombe	Nov. 10 - Mar. 30	22	15
49. Community Art Classes	Wetaskiwin Art Club	Wetaskiwin	Dec. 15 - Apr. 6	16	15
50. Community Art Classes	Camrose Art Club	Camrose	Feb. 5 - Apr. 9	12	15
51. Community Art Classes	Lloydminster Art Club	Lloydminster	Oct. 23 - Mar. 6	30	30
52. Community Art Classes	Department of Extension	Dawson Creek	May 25 - Jun. 10	25	25
53. Children's Art Classes—Junior	Department of Extension	Edmonton	Oct. 23 - Mar. 26	24	24
54. Children's Art Classes—Senior	Department of Extension	Edmonton	Oct. 24 - Mar. 27	15	15
55. Refresher Course in Therapeutics	Alberta Chiroprody Association	Edmonton	Mar. 29 - 30	11	12
56. Actor's Workshop—Senior	Studio Theatre	Edmonton	Oct. 26 - Apr. 10	21	80
57. Actor's Workshop—Advanced	Can. Federation of Business and Professional Women's Club	Edmonton	Oct. 26 - Apr. 10	80	16
58. Public Speaking & Chairmanship	Medicine Hat	Medicine Hat	Nov. 7 - Feb. 13	25	29
59. Music Appreciation	Lethbridge	Lethbridge	Feb. 3 - Apr. 7	20	110
60. Accounting II	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 6 - Mar. 16	40	44
61. Accounting I	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 5 - Mar. 17	40	41
62. Advanced Cost Accounting	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 8 - Mar. 18	40	14
63. Business Mathematics	Society of Industrial and Cost Accountants of Alberta	Calgary	Oct. 9 - Mar. 19	40	31
64. Advanced Cost Accounting	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 6 - Mar. 16	40	20
65. Business Mathematics	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 8 - Mar. 18	40	18
66. Accounting II	Society of Industrial and Cost Accountants of Alberta	Edmonton	Oct. 9 - Mar. 19	40	21
67. Oilwell Safety Clinic	C.P.A., C.A.O.D.C., Workmen's Compensation Board and Dept. of Extension	Banff	Apr. 9 - 10	14	134
68. Soil Mechanics	Faculty of Engineering	Edmonton	Apr. 13 - 17	35	27
69. Ninth Sanitary Inspection Refresher Course	Alberta Public Health, Faculty of Agriculture, Department of Extension	Edmonton	Apr. 20 - 24	40	25
70. Fifteenth Annual Municipal Administration	Alberta Association of M.D. Secretaries, Treasurers, Department of Extension	Banff	May 19 - 21	17	75

71. School Administration	Alberta School Trustees Ass'n., Alberta S.D. Secretary-Treasurers Ass'n., Dept. of Education & Department of Extension	Edmonton	June 8 - 11	20	68
72. 35th Annual Farm Young People's Week	Secretary Treasurers' Ass'n., Dept. of Education, Faculty of Agriculture, School of Household Economics, School of Nursing & Department of Extension	Edmonton	June 9 - 17	64	148
73. Community Life Conference	Local Community Organization & Dept. of Extension	Beaverlodge	June 6 - 9	27	30
74. Community Life Conference	Local Community Organization & Dept. of Extension	Fairview	June 9 - 12	27	20
75. Leadership Workshop	F.W.U.A. Dist. and Dept. of Extension	Sylvan Lake	July 23	6	22
76. Wire Rope Drilling School	P.I.T.S.	Calgary	Sept. 15	3	52
77. Oil Computers School	Imperial Oil Limited	Edmonton	Sept. 21 - 25	30	11
78. A.C.W.A. Leadership Workshop	A.C.W.A.	Edmonton	Sept. 30	5	50
79. 4th Annual Leadership Course	F.U.A., A.W.P., U.G.G., U.F.A., Dept. of Extension	Edmonton	Oct. 26 - Nov. 7	110	42
80. Leadership Workshop	F.U.A.	Sangudo	Nov. 14	7	52
81. Leadership Workshop	F.U.A.	Clyde	Nov. 21	7	48
82. Leadership Workshop	F.U.A.	Vermilion	Nov. 28	7	70
83. Beginner's Writing Course	Canadian Authors' Association (Edmonton Branch)	Edmonton	Nov. 19 - Feb. 20	24	30
84. Underwriters Life Insurance Marketing Course	Northern Alberta Life Underwriters' Association and Department of Extension	Edmonton	Jan. 4 - 8	30	71
85. Committee Workshop	Drumheller Agricultural Society	Drumheller	Feb. 17 - 18	12	22
86. Committee Workshop	High River F.U.A. District	High River	Feb. 23 - 24	12	30
87. Nursing Institute	School of Nursing, Department of Health	Edmonton	Mar. 15 - 19	30	58
88. Nursing Institute	School of Nursing, Department of Health	Calgary	Mar. 22 - 26	30	47
89. Driver Training Instructor's School	P.I.T.S., A.M.A.	Edmonton	Sept. 24 - 25	10	17
90. Wire Rope Drilling Line School	P.I.T.S., Shell Oil Company	Radville Sask.	Oct. 7 - ...	3	24
91. Wire Drilling Line School	P.I.T.S.	Edmonton	Oct. 14	3	34
92. Wire Drilling Line School	P.I.T.S.	Edmonton	Oct. 28	3	44
93. Wire Drilling Line School	P.I.T.S., Canadian Gulf Oil	Stettler	Nov. 26 - 27	3	93
94. Drilling Management Training	P.I.T.S., C.A.O.D.C.	Calgary	Mar. 8, 9, 10, 22, 23, 24	35	23
95. Oilfield Cost Accounting	P.I.T.S., C.P.A.	Calgary	Mar. 11, 12, 13, 25, 26, 27	30	49
96. Drilling Management Training	P.I.T.S., C.A.O.D.C.	Edmonton	Mar. 15, 16, 17, 29, 30, 31	35	15
97. Oilfield Cost Accounting	P.I.T.S., C.P.A.	Edmonton	Mar. 18, 19, 20, Apr. 1, 2, 3	30	17
98. Oilfield Safety Clinic	P.I.T.S., W.C.B., C.A.O.D.C.	Stettler	May 30	3	31
99. Oilfield Safety Clinic	P.I.T.S., W.C.B., C.A.O.D.C.	Drumheller	Aug. 4	3	72
100. Choral Leadership	Dept. of Fine Arts & Dept. of Extension	Tofield	Feb. 22 - Apr. 12	22	22
101. Teachers Refresher Course	Department of Extension	Calgary	Jan. 4 - Apr. 14	20	20
102. Sculpturing Course	Department of Extension	Edmonton	Oct. 25 - Mar. 26	9	9
103. Banff School of Fine Arts Summer Session	Banff School of Fine Arts	Banff	Jun. 21 - Sept. 11	535	535
104. Summer Short Course in Painting	Banff School of Fine Arts	Banff	Jun. 22 - Jul. 4	32	32

Table II—Continued

Course, Class, Conference	Sponsor	Place	Period	Hours' Duration	Attendance
105. Autumn Short Course in Painting	Banff School of Fine Arts	Banff	Aug. 17 - Sept. 12		15
106. Banff School of Advanced Management	Universities of Alberta, British Columbia, Manitoba & Saskatchewan	Banff	Feb. 1 - Mar. 13		69
107. Short Course in Executive Development	Dept. of Extension, Society of Industrial and Cost Accountants of Alberta	Banff	Mar. 22 - Apr. 3		26
108. Short Course in Leadership Techniques	Department of Extension	Banff	Oct. 25 - Nov. 7	80	45
109. English Usage for Articling Chartered Accountant Students	Department of Extension and Alberta Institute of Chartered Accountants	Edmonton	Oct. 10 - Nov. 28	24	79
110. S.M.G. Little Theatre Drama Workshop	Department of Extension	Sangudo Mayerthorpe Greencourt	Oct. 14 - Nov. 20	75	78
111. Coaldale Little Theatre Drama Workshop	Department of Extension	Coaldale	Nov. 3 - 5	14	26
112. Drama Workshop	Department of Extension	Camrose	Jan. 4 - Feb. 22	24	14
113. Drama Workshop	Department of Extension	Olds	Jan. 5 - Feb. 23	19	26
114. Drama Workshop	Department of Extension	Parkland	Feb. 3 - 5	10	44
115. Drama Workshop	Department of Extension	Queenstown	Feb. 11 - 13	19	19
116. Drama Workshop	Department of Extension	Cardston	Feb. 24 - 26	18	88
					<hr/> 4,960

Report of Dr. R. D. Stuart, Director, Provincial Laboratory of Public Health

During 1953 the Provincial Laboratories carried out 277,374 examinations, the nature of which is shown in the accompanying tables. The work done has increased by 24,594 examinations or by 10%. To this increase the contribution of the Calgary Laboratory, directed by Dr. Shute, was notable, being almost 9,000 examinations or 15% of its previous total.

Special Trends

No outstanding trend has developed this year. This is unfortunate, particularly in view of the evident increasing importance of virus infections to community health as demonstrated by the catastrophic epidemic of poliomyelitis in the Western Provinces. It is not too late to plan development of diagnostic facilities for such infections within a reasonable framework, but such a development will demand some provision of specialized accommodation and equipment outside our present compass.

In the Central Provincial Laboratory—In Edmonton, our recent provision of gonococcal culture facilities has amply justified the time and energy put into it. It is hoped that 1954 will see the Southern Branch Laboratory taking over the investigations of this nature applicable to its own area. The value of our program of routine bacterial sensitivity tests is, I think, being increasingly appreciated by clinical workers in view of the developing complexities of antibiotic therapy. In sanitary bacteriology the trend to centralization of water examinations under the control of health units has produced circumstances favourable to our development of special transport methods applicable to the widely dispersed sources of potable waters in the province.

Dr. Macgregor, Provincial Pathologist, in recording an increase in the number of Ascheim Zondek tests for pregnancy carried out by his department, has indicated that the frog test is now replacing the rabbit test. Frogs can readily be obtained commercially at all times of the year, cost considerably less than rabbits, and their use entails no expense for maintenance.

In the Southern Branch Laboratory—In Calgary, a trend away from its immediate service attachment to the Provincial T.B. Sanatorium has arisen owing to the impracticability of correlating laboratory and sanatorium working hours. Laboratory technicians must perforce return to Calgary at times fixed by available transport. This has re-emphasized the unfortunate siting of our public health laboratory with all its disadvantages, the provision of special transport, difficulties of attracting and retaining staff, etc. In the long view, a relocation of our Calgary Laboratory in the city itself would achieve economy and would undoubtedly result in an increasingly valuable service.

New or Supplementary Services

Due largely to the crippling influence of staff resignations, often through the attraction of higher salaries in commercial undertakings, no developments worthy of note have occurred in the Central Laboratory this year. Supplementary, however, to our normal service, we have undertaken a survey of the incidence of Tularaemia and Brucellosis among the Indian population in collaboration with physicians of the Camsell Hospital.

In the Calgary Laboratory a diagnostic service in Mycology is being actively developed by Dr. Crichton, who has received special training in this work through a Provincial Training Grant. Dr. Crichton has also undertaken a

painstaking survey of the relationship between community serum antibody levels and the applications of the popular Widal technique to the diagnosis of enteric infections.

Regular Laboratory Services

The general level of bacteriological investigations has been maintained in both laboratories. The epidemiological importance of our enteric investigations and particularly the valuable information on the spread of Salmonellosis derived through our excellent relationship with the Provincial Veterinary Laboratory has been favourably commented on in Ottawa. The occurrence in an Indian reserve at Vilna of a small typhoid outbreak caused by a type of typhoid bacillus not previously recorded in Canada is an interesting though puzzling example of such an epidemiological circumstance. The importance of our Indian populations as possible reservoirs of human epidemic diseases is also emphasized by the occurrence of four cases of diphtheria on the reserve at Cardston. An investigation under Dr. Shute's direction revealed that ten out of a total of 150 children at Gleichen were carrying virulent diphtheria bacilli in their throats.

The considerable increase in syphilis serology recorded under Wassermann and Kahn tests is mainly ascribable to a vigorous campaign by the Division of Social Hygiene. Special surveys have been undertaken in the far north of the province during the late summer and early fall with a view to determining the incidence of latent or unrecognized syphilis in the local populations. Except among the Indian and halfbreed population of the Lac La Biche area, no significant incidence of endemic syphilis was revealed.

Sanitary Bacteriology

The very considerable increase in water examinations in both the Edmonton and Calgary Laboratories is due partly to the increase of commercial undertakings throughout the province and partly to the greater emphasis on the importance of bacteriological control of water supplies in general. Much of this stems from the increasing public health supervision now available through the increased number of health units.

Pathology

The importance of this work is demonstrated by the continued demand on the surgical diagnostic tissue service. Both Edmonton and Calgary Laboratories report an increase in the number of specimens received. Dr. Macgregor and Dr. Shute independently comment on the value of this service, particularly to rural communities where the services of a tissue pathologist are not available, and both emphasize its importance in cancer diagnosis. In this last connection, the increasing reliance on smear techniques for the examination of bronchial washings, sputum, cervical secretions, etc., is noteworthy. Such techniques are speedy in performance but demand an extremely high level of professional skill and experience. The clinical acceptance of our findings reflects great credit on our pathologists and their staffs.

Staff

In the Central Laboratory, Dr. C. R. Amies, M.B., B.S., M.D., D.T.M. and H., L.R.C.P., M.R.C.P. (London), M.R.C.S. (England), has recently arrived to fill the vacancy created by the transfer of Dr. J. H. Stirrat. Dr. Amies, who was

trained in the best laboratories in England, comes to this department from a senior position in the South African Institute of Medical Research. His wide experience in general bacteriology and his special acquaintance with virus research should prove of great value to the province. No other changes have occurred in the senior professional staff.

In the Calgary Laboratory, Dr. Shute returned to full duty from the early part of the year. His satisfactory recovery from the serious illness which caused grave concern at this time last year is most gratifying.

WORK PERFORMED IN THE PROVINCIAL LABORATORY, EDMONTON,
DURING 1953

	Total, 1952	Total, 1953	In- crease	De- crease
Sputum Examination	1,441	1,547	106	.....
Diphtheria and Haemolytic Streptococci	4,915	3,467	.....	1,448
Typhoid Fever (agglutination test)	1,923	2,262	339	.....
Milk	1,972	1,615	.....	357
Water	5,250	6,284	1,034	.....
Guinea Pig Inoculations	2,073	2,325	252	.....
Miscellaneous Bacteriology	6,297	6,741	444	.....
Blood Cultures	832	900	68	.....
Enterobacteria and Intestinal Parasites	3,221	3,381	160	.....
Urinalysis	10	11	1	.....
Medico-Legal (blood, seminal, etc.)	7	8	1	.....
Cerebro-Spinal Fluids for the Wasserman Test ..	2,043	2,144	101	.....
Bloods for the Quantitative Kahn Test	923	898	.....	25
Bloods for the Wasserman Test	7,533	5,249	.....	2,284
Bloods for the Standard Kahn Test	7,352	5,154	.....	2,198
Bloods for the Presumptive Kahn Test	81,342	94,551	13,209	.....
Smears for Gonococcus	10,320	10,200	.....	120
Cultures for Gonococcus	5,460	8,704	3,244	.....
Pathological Histological Material	10,545	10,989	444	.....
Blood Smear Examinations	167	230	63	.....
Post-Mortem Examinations (Edmonton)	376	339	.....	37
Post-Mortem Reports (outside points)	147	189	42	.....
Ascheim Zondek Tests	339	107	.....	292
Frog Tests	73	408	335	.....
Fluids for Cancer Cells	410	268	.....	142
Cancer Cytology	75	69	.....	6
Bone Marrows	23	23	.....	.....
Cerebro-spinal fluids, examination (Colloidal, Gold, Pandey)	2,459	2,594	.....	.....
Bacteriological Examinations (P.M.)	70	107	37	.....
B. Abortus Examinations (agglutination test) ...	1,928	2,335	407	.....
P. Tularensis (agglutination test)	1,929	2,387	458	.....
Antibiotic Sensitiveness, Etc. (discs)	28,310	28,650	340	.....
Mycological Examinations	770	736	.....	34
Weil Felix	3	12	9	.....
Paul Bunnell Tests	731	928	197	.....
T.B. Smears and Cultures	2,401	3,215	814	.....
Autogenous Vaccine	19	24	5	.....
Cattle Bloods .....	.....	375	375	.....
Total	193,749	209,426	22,620	6,943

Report of Dr. D. Shute, Director of the Provincial Laboratory of Public Health, Southern Branch

Introductory

The year 1953 has again seen an increase in the services provided by the Southern Branch. The overall increase is of the order of 13.3%.

An attempt has been made to estimate the volume of work done for the Central Alberta Sanatorium. This includes all tests connected with the examination of material for the presence of Myco. tuberculosis (by direct, cultural and guinea pig methods) and various clinical pathology procedures such as blood counts, urinalyses and biochemical estimations. The conclusion reached was that rather less than 15% of our total derives from the in- and out-patient activities of the Sanatorium.

It is understood that the clinical laboratory is to be reopened in the Sanatorium in the near future, so that the Provincial Laboratory will handle even less of their material.

These facts add weight to my previously expressed opinion that if the laboratory was resited on the grounds of the Calgary Branch of the University of Alberta the service to the great majority of our users could be expedited, our excessive expenditure on transportation and trucking greatly reduced and staff-recruiting difficulties much eased.

Bacteriology

The volume of work has increased in both the Miscellaneous and the Typhoid Departments.

The increase in Miscellaneous is partially accounted for by the occurrence of four cases of diphtheria on the Indian reserve at Cardston and the isolation of virulent diphtheria bacilli from the throats of ten out of the total of 150 children in the Indian Residential School at Gleichen.

The continued misunderstanding by practitioners of the value of the Widal Agglutination Test in the diagnosis of pyrexial illnesses led to a survey of the typhoid and paratyphoid antibody titres encountered in a cross-section of the population. The material resulting from this survey is being prepared for publication by Dr. Crichton and in the meanwhile we are continuing to advocate early blood cultures in all cases of undiagnosed pyrexia rather than the late examination of blood for specific antibodies which so frequently gives misleading and inconclusive results.

Following the attendance of Dr. Crichton at a postgraduate course in Medical Mycology at McGill University during the summer, a service for the preliminary investigation of fungi is now offered.

Pathological Histology

In all, 2,736 tissue specimens were received during the year and from these 3,842 blocks processed and sectioned. These, with an approximate 10% requiring serial sectioning, fully occupied the time of one technician and one secretary.

Our records show that 276 definite diagnoses of cancer were made. This figure does not, of course, represent 276 individuals, as some of the tissues were from recurrences or distant metastases of cancer previously diagnosed.

The urge to make cancer diagnoses early has been reflected in this laboratory by an increase, from 105 to 165, of specimens received for investigation by Papanicolaou's cytological technique.

Equipment

The technical equipment is now practically complete and, with the exception of a camera for photo-micrography, it is not anticipated that any major addition will be required.

Buildings

The laboratory buildings have been painted throughout internally so that the working conditions are now clean and pleasant.

Staff

The modern vogue of the five-day week has caused, and will in the future cause, considerable difficulty in recruiting of both technical and secretarial staff.

Most business organizations and many of the Dominion, Provincial and Municipal Government offices now operate a five-day week, and this provides almost insuperable competition.

Unless some effort is made to fall into line with working conditions as they exist elsewhere, it is felt that the laboratory staff may dwindle away and a complete breakdown of our service will result.

WORK PERFORMED IN THE PROVINCIAL LABORATORY, SOUTHERN
BRANCH, CALGARY, DURING 1953

Sputum Examinations	5,052
Diphtheria and Haemolytic Streptococci	838
Diphtheria Virulence Tests	28
Typhoid Fever (agglutination test)	1,313
Milk	1,136
Water	1,796
Guinea Pig Inoculations	1,199
Miscellaneous Bacteriology	985
Blood Cultures	129
Enterobacteria and Intestinal Parasites	278
Urinalyses	2,873
Medico-Legal	
Blood Counts	1,501
Biochemistry Investigations	380
Cerebro-Spinal Fluids for the Wassermann Test	1,146
Bloods for the Quantitative Kahn Test	313
Bloods for the Wassermann Test	2,616
Bloods for the Standard Kahn Test	2,431
Bloods for the Presumptive Kahn Test.....	27,719
Smears for Gonococcus	2,619
Van den Bergh Determinations	2
Pathological Histological Material	2,735
Blood Smear Examinations	94
Post-Mortem Examinations	4
Histology from Post-Mortems	7
Ascheim Zondek Examinations	
Bone Marrows	
Fluids for Cancer Cells	165
Cerebro-Spinal Fluid Examinations (Colloidal, Gold, Pandy)	1,128
Bacteriological Examinations (P.M.)	
B. Abortus Examinations (agglutination test)	1,313
P. Tularensis (agglutination test)	1,313
B. Militenses (agglutination test)	
Cattle Blood—Bang's Disease	
Miscellaneous T.B. Smears	739
Total	61,852

Report of C. Emerson Noble, Director of the Industrial Laboratories

I would like to give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the year July 1, 1953, to June 30, 1954.

Examinations and Analyses

Acid	5	Fungi	3
Aggregate	2	Furs	4
Alcohol	2	Galena	2
Alfalfa	2	Gasoline	10
Alloys	1	Glauber's Salts	14
Antifreeze	9	Glass	1
Ash	3	Gold	5
Asbestos	3	Grain	4
Asphalt	19	Gravel	7
Babbit Metal	1	Gypsum	6
Barytes	3	Hair	9
Bentonite	3	Hay	4
Blood	214	Honey	2
Bones	1	Hydraulic Fluid	3
Brain (for alcohol)	66	Industrial Chemicals	16
Brewer's Grain	5	Insects	10
Brine	2	Insecticides	1
Breakfast Cereal	1	Iron Oxide	6
Butter	4	Iron	4
Candy	3	Jam	1
Carbon	4	Lard	1
Cement	7	Lead	1
Cerebral Fluid	5	Liquor—	
Cheese	1	Detailed for A.L.C.B.	49
Chlorine Compounds	13	Malt for A.L.C.B.	661
Clay	39	Miscellaneous	4
Cigarettes	2	Police Samples	94
Cleanser	3	Liquid	16
Cloth	13	Lime	5
Clothes	16	Limestone	290
Coal	58	Linseed Oil	1
Coffee	3	Machine Parts	11
Concrete	60	Magnesite	1
Copper	5	Margarine	1
Cores	1	Marl	32
Cream	2	Meat	20
2-4-D	2	Meat Meal	3
D.D.T.	1	Medical Compounds	1
Deposits	44	Medicine	2
Dolomite	1	Metal	3
Dust	4	Mica	1
Embalming Fluid	2	Milk	33
Fat	5	Minerals	6
Feed—		Miscellaneous	11
Animal	36	Mortar	2
Poultry	53	Mud	7
Concentrates	8	Mushrooms	1
Fertilizer	3	Narcotics (O.&N.D. exhibits)	117
Fire Exhibits	9	Oats	7
Fish	4	Obsidium	1
Flax	1	Oil—	
Flour	7	Crude	4
Food (Human)	21	Lubricating	12
Fossil	1	Protective	15
Fruit	4	Fuel	9
Fruit Juice	1	Edible	1

Oil Residue	2	Solutions	3
Ore	309	Steel	14
Paint	9	Stucco	2
Paint Remover	4	Sugar	3
Paper	5	Tankage	8
Pills	9	Tar	12
Pitchblende	1	Tile	2
Plants	2	Teeth	1
Plastic	2	Tobacco	1
Plaster	3	Tufa	1
Poison Exhibits—		Urine	102
Miscellaneous	5	Vegetables	1
Human	250	Vinegar	2
Police Exhibits (miscellaneous)	51	Volcanic Ash	1
Powder	13	Water—	
Pyrites	3	Sanitary	2,684
Quartz	2	Poison	3
Resin	1	Industrial	24
Rock	87	Wax	24
Rope	2	Weeds	2
Rubber	2	Wire	4
Rugs	1	Wheat	301
Sand	19	Wood	10
Sandstone	6	Veterinary Specimens	497
Salt	8		
Scale	8		
Schist	5		
Sediment	8		
Seed	2		
Shale	24		
Shakes	4		
Silage	6		
Silk	1		
Sludge	6		
Silver Polish	1		
Soap	40		
Soap Powder	2		
Soils	162		
Solder	2		
Starch	4		

Engineering Materials

Batteries	2
Concrete Cylinders	4,308
Electricians' Gloves	249
Insulators	86
Lightning Arresters	54
Resistance Box	2
Rubber Hose	23
Rubber Mats	7
Thermometers	1
Transformers	3
Wire Rope	1
Total	11,832

The engineering materials were handled in conjunction with the Departments of Civil and Electrical Engineering. Various analyses were made as required for provincial government departments, such as Attorney General, Agriculture, Alberta Liquor Control Board, Mines and Forests, Lands and Minerals, Health, Provincial Secretary, Highways, and Public Works.

The Provincial Analyst is required to make control analyses for the Alberta Liquor Control Board re the Alberta breweries and distillers. Chemical examinations were made for the Provincial Laboratory as required, also for the Provincial Coroner and the Department of Pathology, and the hospitals. With analyses made for the Department of the Attorney General and the Provincial Coroner, necessary court evidence was given under Dominion and Provincial acts and regulations and the Criminal Code.

Necessary analyses were made for the police departments in Alberta and court evidence given when required.

The number of analyses made for the Department of Health and the police continues to increase at the most rapid rate, while more industrial analyses are done privately. Detailed analyses were made on 2,684 sanitary waters, 497 veterinary and 250 human specimens.

Many of the commercial analyses require considerable research, and also research was necessary on many methods of analysis.



REPORT
OF
THE GOVERNORS
OF THE
UNIVERSITY OF ALBERTA
1954-55

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To the Lieutenant-Governor in Council

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to submit through the Minister of Education the Report of the University of Alberta, setting forth the revenue and expenditure for the year ending March 31, 1955, and investments as they stood at the end of the fiscal year.

Appended to this report is the report of the President of the University, in which the academic work of the University for the year, July 1, 1954, to June 30, 1955, is dealt with in detail.

C. M. MACLEOD, Chairman
A. STEWART, President

November 30, 1955

Financial Statements

STATEMENT A

UNIVERSITY OF ALBERTA

BALANCE SHEET AS AT MARCH 31, 1955

ASSETS

Buildings and equipment in service:		
Land, buildings and plant	\$12,815,610.26	
Furnishings and equipment	2,573,360.65	
		\$15,388,970.91
Loan receivable:		
Students' Union re Students' Union building, see contra		300,707.48
Investments:		
Provincial direct and guaranteed debentures at book value (market value \$210,750.00)		197,720.00
Current:		
Cash on hand and in bank	\$ 37,760.79	
Accounts receivable:		
Sundry debtors	\$ 92,864.19	
Less: Allowance for doubtful accounts	2,500.00	
	\$ 90,364.19	
Government of the Province of Alberta re construction of buildings	204,584.14	
	297,073.33	
Accrued interest	4,604.16	
Merchandise held for resale	101,493.83	
		440,932.11
Prepaid expenses:		
Supplies on hand	\$ 76,484.43	
Unexpired insurance	6,378.61	
Legal retainer fee	375.00	
Unemployment insurance stamps	307.16	
		83,545.20
Other assets:		
Livestock inventory	\$ 26,194.50	
Deposit, Workmen's Compensation Board	8,564.00	
		34,758.50
		\$16,446,634.20
Trust:		
Investments, book value:		
Government of Canada bonds, direct and guaranteed	\$1,347,800.00	
Provincial debentures, direct and guaranteed	645,500.00	
Corporation debentures	3,000.00	
Corporation shares	22,226.93	
	\$ 2,018,526.93	
Cash on hand and in bank	273,512.12	
Loans receivable	103,893.55	
Agreement for sale	100.00	
Real estate, shares and sundry, nominal value	8.00	
		2,396,040.60
		\$18,842,674.80
		=====

LIABILITIES

Capital and surplus:			
Capital provided by the Government of the Province of Alberta	\$12,961,182.03		
Capital surplus	2,506,233.24		
			\$15,467,415.27
Loan payable:			
Government of the Province of Alberta re Students' Union building, see contra			300,707.48
Agreement for purchase of leasehold			7,907.19
Current:			
Accounts payable			148,679.05
Deferred income:			
Fees	\$	9,620.95	
Other		488.95	
			10,109.90
Reserves:			
Federal aid funds unexpended	\$	238,537.39	
Land exchange		25,145.35	
Library fees unexpended		23,424.29	
University Athletic Board fees unexpended		21,609.27	
Workmen's Compensation Board		9,466.75	
Dining room replacements		1,304.38	
Rink repairs		1,148.16	
Provincial Laboratory of Public Health, operating		60,048.84	
Operating, general		131,130.88	
			511,815.31
			\$16,446,634.20
Trust:			
General endowment, Rockefeller foundation	\$	500,000.00	
Scholarships:			
Escheated estates	\$	589,195.94	
General		394,519.39	
			983,715.33
Research		351,054.08	
Students' grants and loans		128,668.39	
General educational purposes		82,627.55	
Pensions		55,101.15	
Sundry:			
Administered by the University	\$	85,868.82	
Held on behalf of others		206,880.28	
			292,749.10
Due to general account		2,125.00	
			2,396,040.60
			\$18,842,674.80

Edmonton, Alberta, July 28, 1955.

I have audited the books and records of the University of Alberta for the year ended March 31, 1955.

Operating Results

Operations for the year under review resulted in a deficit of \$39,048.39. Details of operations are shown in Statement B.

The deficit for the year has been carried to operating reserve. Transactions within the reserve are set forth in Statement C.

Maintenance and upkeep of buildings used by the Faculty of Education in Edmonton and the branch of the University in Calgary have been provided by the Province direct.

Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation, but an independent appraisal, completed during the year ended March 31, 1950, indicates that values have been maintained through repairs and renewals, which have been financed from revenue and reserve accounts.

Investments, general and trust, were verified by actual examination, and agreed with the records of the University.

Inventories of merchandise for resale and supplies on hand are certified as to quantities and prices by officials of the University.

Capital and capital surplus transactions during the year are summarized hereunder:

Capital provided by the Government of the Province of Alberta:

Balance as at April 1, 1954	\$12,202,720.13
Add:	
Advances during year:	
Agriculture building	376,757.47
Greenhouse and headhouse	246,188.93
Swine barn	39,937.98
Improvements, buildings and grounds	28,870.13
Equipment	66,707.39
	<hr/>
	\$12,961,182.03

Capital surplus:

Balance as at April 1, 1954	\$ 2,334,523.70
Add:	
Acquired from trusts and donated funds:	
Banff school, administration building	10,230.05
Equipment	14,271.27
Library	802.10
Provided from reserve funds:	
Land exchange	36,854.65
Equipment	6,277.34
Income contributions:	
Buildings and equipment	71,658.98
Library	31,620.15
	<hr/>
	2,506,233.24
	<hr/>
	\$15,467,415.27
	<hr/>
	=====

Subject to the foregoing, I certify that, in my opinion, the above Balance Sheet is properly drawn up so as to show the true financial position of the University of Alberta as at March 31, 1955, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, F.C.A.,
provincial Auditor.

UNIVERSITY OF ALBERTA
STATEMENT OF REVENUE AND EXPENDITURE
FOR THE YEAR ENDED MARCH 31, 1955

REVENUE

Grants:		
Province of Alberta:		
General	\$ 1,700,000.00	
Debt charges, see contra	355,395.61	
	<u>\$2,055,395.61</u>	
Government of Canada:		
Federal aid	511,447.75	\$2,566,843.36
		<u>785,171.56</u>
Fees:		
Tuition	\$ 776,989.00	
Examination and special, net	8,182.56	
		<u>10,000.00</u>
Interest on Rockefeller foundation endowment	\$ 15,000.00	
Deduct: Transferred to medical research trust	5,000.00	
		<u>16,962.89</u>
Library fees, see contra		49,057.76
University Athletic Board fees, see contra		
Operating departments net revenue		<u>\$3,462,075.24</u>

EXPENDITURE

Instructional salaries and direct expenses		\$ 2,226,453.85
Maintenance of buildings		394,795.17
Debt charges, see contra		355,395.61
Library:		
Salaries and expenses, Edmonton	\$ 123,288.22	
Salaries and expenses, Calgary	8,565.14	
Provisions for library accessions, see contra	34,039.67	
		<u>165,893.03</u>
Administrative salaries and expenses		129,805.50
Maintenance of grounds		43,392.52
Other expenses:		
Student advisory services	\$ 19,123.96	
Provision for University Athletic Board expenses, see contra	16,962.89	
Calendars, scientific and other publications	15,227.89	
Alumni office	7,812.26	
Provost's office	7,209.48	
Pension arrears	6,018.24	
Travelling expenses, instructional staff	5,190.80	
First year committee	249.96	
Exchange	241.64	
		<u>78,037.12</u>
Public service departments net expenditure		107,350.83
		<u>\$3,501,123.63</u>
Deficit for the Year ended March 31, 1955, charged to operating reserve		<u>\$ 39,048.39</u>

UNIVERSITY OF ALBERTA
STATEMENT OF OPERATING RESERVE
FOR THE YEAR ENDED MARCH 31, 1955

STATEMENT C

Balance as at April 1, 1954		\$ 315,733.64
Add:		
Transfer of reserve for premium on Rockefeller foundation endowment		18,221.66
		<u>\$ 333,955.30</u>
Deduct:		
Expenditure on:		
Conversion of South Laboratory	\$ 91,711.94	
Furnishings and equipment	67,322.45	
Engineering building	2,808.30	
		<u>161,842.69</u>
		<u>\$ 172,112.61</u>
Deduct:		
Deficit for the year ended March 31, 1955		39,048.39
		<u>\$ 133,064.22</u>
Deduct:		
Transfer to Provincial Laboratory of Public Health operat- ing reserve:		
Excess of revenue over expenditure		1,933.34
		<u>1,933.34</u>
Balance as at March 31, 1955		<u><u>\$ 131,130.88</u></u>

*To the Governors of the
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30, 1955.

A. STEWART,
President

Report of the President to Convocation

October 30, 1954

Yesterday the Agriculture Building was officially opened, and today the Faculty of Agriculture is holding open house in its new home. At this ceremony we are honouring Agriculture through those who have served it faithfully in the practice of farming, in the advancement of agricultural science, in administration and in education; and we welcome to Convocation representatives of the Master Farm Families of this Province. It is therefore appropriate that my report should be an account of the services rendered by the Faculty of Agriculture of the University of Alberta.

New workers in Agriculture are recruited mainly from farm families, and, while furthering his general education at school, the farm boy has a unique opportunity to make himself proficient in the practice of his vocation. Where the father is himself skilled in the arts of farming, the son grows up under an easy and effective system of apprenticeship. His home experiences may be supplemented by group activities under the supervision of technically trained personnel, through programs sponsored by the Department of Agriculture. Vocational agriculture is now taught in some high schools; and, for those who wish, the Schools of Agriculture of the Department of Agriculture provide further vocational experiences.

Within the general field of agricultural education, the Faculty of Agriculture has its own specific function, which is complementary to the system of vocational training. The young farmer who is inquisitive to know more about the processes he controls, will find the degree course at the University stimulating and rewarding; and the Faculty takes pride in the records of those of its graduates who have returned to the farm. However, the program does not duplicate the work of the Schools of Agriculture; its emphasis is on the scientific foundations of agricultural procedures and practices. The graduates of the Faculty of Agriculture are the agrologists who constitute the essential auxiliary personnel in a prosperous and progressive agriculture. They are found in the service of agriculture in classrooms where agriculture is taught, in research laboratories, agricultural industries, extension activities, and government services. In 40 years, the University has conferred the degree of Bachelor of Science on 856 graduates of the Faculty of Agriculture; 170 of these have completed the requirements of the Master of Science. In addition the Master's degree has been granted to 44 graduates of other universities. Last year the first Ph.D was awarded, to a student in the Department of Plant Science.

The principal difference between the modern farm and its earlier counterpart is the immensely increased output per worker. This development, which has made it possible to sustain the populations of industrialized countries, is the result of the application of scientific knowledge to farming practices, in the substitution of mechanical power for human and animal energy, in improved breeding of plants and animals, in supplementing the original fertility of the soil, in better feeding of livestock, and in control of pests and diseases. The new knowledge has come mainly from the experimental and research work of the scientists.

In Alberta, the Canada Department of Agriculture has supported scientific investigations at its experimental farms and in the laboratories of Science Service. The Faculty of Agriculture has been the provincial agency for agricultural research and experimentation; and, although the importance of teaching and research defy measurement and comparison, it would perhaps be correct to say that research is the main function of the Faculty. The facilities for research and the permanent complement of research workers are provided by the University; but some of the funds for the prosecution of research projects come from other sources. In 1953, the Canada Department of Agriculture, the National Research Council and a large number of commercial and industrial organizations contributed some \$120,000, for the support of research in the Faculty of Agriculture. It is impossible to compute the value of the results of the program of research conducted over the past forty years. There can however, be no question that it has repaid itself many times in the increased productivity of the farms of the Province.

If advances in agricultural technology are to be applied in the practice of farming, knowledge acquired in the laboratory must be taken to the farm and interpreted to the farmer. This is the extension function. There are many media for extension. Each can make a valuable contribution. However, as new techniques must be applied in the particular setting of each farm, there is probably no means so effective as the direct advice of the technically trained field worker who has access to the farm.

The press and the radio offer valuable service to rural people. The Provincial Department of Agriculture and other organizations have their extension staffs. Contact with farm conditions is necessary to effective research, and members of the Faculty of Agriculture must have the opportunity to keep in touch with the farms of the Province. However, the Faculty is not staffed to assume large responsibilities for extension services. The results of research carried out at the University must be taken to the farms largely through other agencies. Feeders Day at the Livestock Farm, Visitors Day at the Plant Science plots, participation by staff in local field days, and the publication of experimental results are among the helpful extension activities which the Faculty does perform. The Faculty have published 59 bulletins, 28 circulars and 25 leaflets. In 1953, 24,000 copies of these were distributed. Of the bulletins alone 680,000 copies have been distributed since 1922.

It is a peculiar thing—or is it?—that the cause of agriculture seems to inspire in those who serve it an unusual enthusiasm, devotion and singleness of purpose. During the forty years since the Faculty of Agriculture was founded, the University has been privileged to give to agriculture the services of men whose works live after them and whose memories will remain ever green: Dean E. A. Howes, of whom, at the 25th Anniversary of the University of Alberta, Dr. W. H. Alexander said, "In September 15, the College of Agriculture was born, Dean Howes came to look after the infant, and that event alone justified its birth": Dean Robert Sinclair who combined in a unique degree the patience of the teacher, the perseverance of the research worker, and the capacity to communicate with his fellow farmers: Dr. Robert Newton, the Scientist, Professor of Field Crops, Dean of the Faculty of Agriculture, and now President Emeritus of the University of Alberta: Harcourt: Marker: Wyatt: Sackville: MacGregor: Smith: Strickland: and Fryer.

The Faculty which these men, and others, helped to form is in good hands, and with its new facilities stands well-equipped to carry forward its services to agriculture.

Report of the President to Convocation

May 17, 1955

I have to report that in its various branches and operations the work of the University has proceeded smoothly and effectively during the session now ending. For this our thanks are due to the Board of Governors, the Senate, General Faculty Council, Students' Council, the administrative officers, the non-academic staff, and particularly the individual students and instructors.

Throughout the past months two problems of considerable importance to the future of the University have been continuously under consideration. First, the effective articulation of the work of the high school and of the University; and second, the prospective increase in student numbers. The two problems are not unrelated; neither are they peculiar to Alberta. The common factor is the demand for more education for larger numbers. This is a Canadian, a continental, and indeed a universal phenomenon.

All Canadian universities are feeling the impact of changes in the schools. The schools have been accommodating themselves to sharply increased numbers of students, many of whom will not be candidates for admission to universities. The process of accommodation has disturbed the traditional progression of students through high school and university. The difficulties of transition from school to university have increased and will become more acute as numbers continue to grow. I do not believe that the difficulties can be resolved without either more effective means of meeting the special needs of the pre-university students in the high schools, or providing for another year of instruction within the framework of the university program.

The essential issue here has been no more succinctly stated than in an article by the late Dr. R. C. Wallace, recently appearing in the *Queen's Quarterly*. Dr. Wallace wrote:

"In recent years we have read and listened to much discussion on the failure of modern education to develop the mental powers of young men and women. Some of the discussion is to the point. But it often avoids the significant fact that a much larger proportion of young people are being educated to the high school level and even to the university level. These are of varying mental capacity; some very good, the larger number fair, and a considerable number poor. If they have to be dealt with together—and funds do not permit for a thorough differentiation—the level of attainment inevitably falls and the disciplinary value of the subject material is weakened. The gain to the many in attaining a higher level of education than was possible in the past is at the sacrifice of the mental challenge to the few who have exceptional minds. Here is a phase of the antithesis between a democracy and an oligarchy, between government by the many and government by the few. And as far as Canada is concerned, this is a transitional phase. It

is important that young people should be educated to take an effective part in the life of the community; on the whole more important, at this stage, than that a relatively few should be trained. The able minds somehow find the means of carrying on with their own education. But the time will come—I trust soon—when Canada can afford to give special attention to the able minds . . . Britain with weaker financial resources than Canada, can afford to give this special care to the able students. The need is as great here—even greater. When the people of Canada are convinced of the need, the way will be found.”

In the meantime, and in any event, the universities must take every precaution to secure the best students, and only those students who are capable of profiting from higher education. The traditional bases of selection of students for admission to universities are coming under general review in Canada. Thus in his most recent President’s Report, Dr. Sidney Smith of the University of Toronto has stated:

“At present too many students fail in their courses. It does appear that the departmental examinations are not predicting adequately a student’s capacity for further academic work. Admission requirements have been raised in some universities, but the situation has not thereby been alleviated. Administrators are being forced to realize that a raising of the minimum standard required for entrance is not an automatic solution . . .

“There are many students now at universities who should not be there; there are many not at the universities who should be there. The situation calls for two measures. The first is a comprehensive and generous system of scholarships and bursaries that will break down the economic barriers against university education, and will wipe out the undemocratic and indefensible inequalities between one region and another, and between city and country. The second is a more intelligently conceived system of selection that, without sacrificing the benefits of formal written examinations, will call in the aid of testing devices and of personal assessments.”

By resolution of the Senate of the University of Alberta there has been set up a committee to review the entire structure of financial aid to students with the object that the limited funds available may be put to the most effective use. It is hoped that within a well-conceived system of aid, and with additional funds which may be provided, this University will be able to assure to every able student in the Province the opportunity to embark upon and to complete a program of university studies.

The Joint Committee to Co-ordinate High School and University Curricula has appointed a Sub-Committee to study the records of students in high school and in university, and to investigate the significance of various criteria for predicting success in university studies. This is a substantial task; but it is hoped that the enquiries of the Committee will aid in the determination of more effective means of selecting students for admission.

All Canadian universities are giving thought to arrangements to meet what has now become known as “the impending tidal wave of students.” (The phrase was coined in the United States; but has been accepted by Canadian university administrators without discount, and circulated usually without acknowledgment!)

University education is the responsibility of the universities, and they must, if they are to meet their responsibilities, give guidance in formulating policies to meet the situation ahead. But decisions cannot be made without reference to public opinion; and action cannot be taken without public support. During the winter, the National Conference of Canadian Universities has supplied speakers who have addressed Canadian Clubs across Canada on the subject: "A Crisis in Canadian Universities". By placing the problem before the public, it is hoped the informed public will support the programs which become necessary to meet the expanding needs.

It is unlikely that the rate of expansion will be uniform or that the appropriate arrangements will be the same in all parts of Canada. What is essential everywhere is that weight of numbers should not imperil the integrity of University degrees or the ready acceptability of graduates into service in any part of Canada. No university in Canada wishes to become a social club, a finishing school, a sports centre, a luxury hotel or an educational cafeteria. No Canadian university can afford a reputation for substandard education because of excessive size of classes, second-rate and over-loaded staff, or insufficient and inadequate equipment.

Conscious of their responsibility to prepare for increased numbers, the Board of Governors in June 1953, appointed a committee to study the probable rate of increase in registrations at the University of Alberta, and to advise on the appropriate arrangements to provide for larger numbers. The Committee reported in July 1954. Since then the report has been under consideration by the Board and the Senate.

The Committee's estimation of registrations will be studied against the experience of enrolments in September 1955. The numbers entering last fall, when total registration of full-time students in the winter session increased by 303, suggest that expansion may occur more rapidly than the Committee anticipated.

The Committee expressed support for the policy of developing a strong central institution to serve the entire Province; but drew attention to the disadvantages which accumulate with increasing size. These disadvantages will eventually create a situation favourable to decentralization of university activities. The time at which this situation will arise will depend upon the rate at which enrolments expand. In the meantime, further attention must be given to the most effective arrangements for decentralization, so that plans may be implemented as the need appears. The decisions to be reached on this matter are of the utmost importance. They will involve a departure from a policy which has served this province well in the past. They must establish sound lines of development for many decades in the future.

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence; retirements, resignations; gifts; new scholarships, prizes and medals; staff publications; student registration; and reports of administrative officers.

Table I—Academic Staff Numbers

Administrative Officers

President	1
Assistant to the President	1
Deans of Faculties	7

Directors of Schools	5	
Director of the Calgary Branch	1	
Assistant Director of the Calgary Branch	1	
Director of the Summer Session	1	
Provost	1	
Assistant Provost, Calgary Branch	1	
Director of Student Advisory Services	1	
Dean of Women	1	
Librarian	1	
Superintendent of the University Hospital	1	
Registrar	1	
Assistant Registrar	2	
Alumni Secretary	1	
Bursar	1	
Accountant	1	
Assistant Accountant	1	
Purchasing Agent	1	
Wardens of Residence Halls	3	
	—	34

Full-Time Teaching Staff

Professors	58	
Associate Professors	80	
Assistant Professors	66	
Lecturers	26	
Instructors	8	
	—	238
On leave of absence:		
Professors	3	
Associate Professors	3	
Assistant Professors	3	
Lecturers	4	

Part-Time Teaching Staff

Professors	9	
Associate Professors	8	
Clinical Professors	11	
Assistant Professors	5	
Associate Clinical Professors	2	
Assistant Clinical Professors	13	
Lecturers	60	
Instructors	82	
Demonstrators in the Faculty of Education	186	
Demonstrators and Student Assistants	150	
	—	526

Department of Extension

Director	1	
Assistant Professors	2	
Agricultural Secretary	1	
Supervisor of Visual Instruction	1	
Librarian	1	
	—	6

<i>Library</i>		
Librarian	1	
Assistant Librarian	1	
Assistants	16	
	—	18
<i>Industrial Laboratories</i>		
Director and Provincial Analyst	1	
Assistant	1	
<i>Provincial Laboratory of Public Health</i>		
Provincial Bacteriologist and Director, Edmonton	1	
Director, Calgary	1	
Provincial Pathologist	1	
Assistants	3	
	—	6
<i>Other Staff</i>		
Dietitians	3	
Radio Secretary	1	
	—	4
Total		834
Less duplicates		34
		—
Total Academic Staff		800
		—

Table II—Academic Staff Appointments and Promotions

Faculty of Agriculture

George Eugene Ball, B.A., M.S., Assistant Professor of Entomology.

Warren Edward Smith, B.Sc., from Assistant to Associate Professor of Field Crops.

Faculty of Arts and Science

Gordon Kay Greene, B.A., B.Ed., Extension Lecturer in Music.

Harry Wohlfarth, Extension Lecturer in Art.

George David Garland, B.A.Sc., M.A., Ph.D., Assistant Professor of Geophysics.

William John Wallace, B.A., Ph.D., Assistant Professor of Chemistry.

Samuel James Nelson, M.Sc., Ph.D., Lecturer in Geology.

John D. Godfrey, B.Sc., M.S., Sessional Lecturer in Geology.

Lawrence Clinton Walker, B.A., M.A., Ph.D., Lecturer in Social Psychology.

Donald Edward McGreer, B.Sc., Sessional Instructor in Chemistry.

Dieter Ernest Thyne, B.S., Sessional Instructor in Chemistry.

Henry Finlayson, Sessional Lecturer in Mathematics.

Margaret Mae Sullivan, Sessional Lecturer in French (Calgary Branch).

Raymond D. McCurdy, Sessional Instructor in Physics.

Hinda E. Doz, Sessional Instructor in Chemistry.

Pierre Gobin, Teaching Fellow in Modern Languages.

Carl R. D. Hare, Teaching Fellow in English.

A. R. Godfrey, Sessional Instructor in English.

H. T. Danyluk, Sessional Instructor in Mathematics.

J. R. Trollop, Sessional Instructor in Mathematics.

Lawrence Howard Nichols, B.A., M.A., F.R.Met.S., from Associate Professor to Professor of Physics.
 George Moore Self, M.A., Ph.D., from Assistant to Associate Professor of History (Calgary Branch).
 Thorlief Forstvedt, B.Sc., M.S., from Assistant to Associate Professor of Mathematics.
 Allan Gibb, B.Sc., B.Ed., M.A., Ed.D., from Assistant to Associate Professor of Mathematics (Calgary Branch).
 Arthur Reginald Prince, B.A., M.A., from Assistant to Associate Professor of Biology (Calgary Branch).
 Donald Spearman, M.A., Ph.D., from Assistant to Associate Professor of Psychology.
 James Harvey Harrold, M.A., Ph.D., from Assistant to Associate Professor of Physics.
 Walter Dunham Gainer, B.Sc., M.S., from Assistant to Associate Professor of Economics.
 William Mackenzie, B.Sc., B.Litt., M.S., from Assistant to Associate Professor of Economics.
 Henry Kreisel, M.A., Ph.D., from Assistant to Associate Professor of English.
 Harry Schiff, M.Sc., Ph.D., from Lecturer to Assistant Professor of Physics.
 John Ralph Nursall, M.Sc., Ph.D., from Lecturer to Assistant Professor of Zoology.
 Lolita Wilson, B.A., M.A., from Lecturer to Assistant Professor of Psychology and Assistant Director, Student Advisory Services.
 Earl Frederick Guy, M.A., Ph.D., from Lecturer to Assistant Professor of English (Calgary Branch).
 Leo Moser, B.Sc., M.A., Ph.D., from Assistant to Associate Professor of Mathematics.

School of Household Economics

Bernice Reed, B.Sc., B.Ed., Sessional Lecturer in Household Economics.
 Evelyn Erdman, B.Sc., Sessional Lecturer in Household Economics.
 Mary Glass, Sessional Lecturer in Household Economics.

Faculty of Dentistry

J. S. Little, D.D.S., Sessional Instructor in Dentistry.
 R. D. Haryette, D.D.S., Sessional Lecturer in Orthodontics.

Faculty of Education

Robert Harper, M.A., Lecturer in Educational Psychology.
 Edward Norman Yates, Sessional Instructor in Education (Art).
 G. S. Lord, Special Lecturer in Education.
 G. F. A. Baer, Special Lecturer in Education (Calgary Branch).
 Bertha Morse Newton, B.Sc. in Ed., A.M., from Assistant to Associate Professor of Education (Calgary Branch).
 Wilfrid Pilkington, M.A., B.Ed., from Assistant to Associate Professor of Education.
 Helen Barbara Stadelbauer, B.Sc., M.A., from Assistant to Associate Professor of Education (Calgary Branch).
 Brigham Young Card, B.Sc., B.Ed., from Assistant to Associate Professor of Education.
 Velma Irene Rust, M.Ed., from Lecturer to Assistant Professor of Education.

Faculty of Engineering

- Harold Russell McArthur, B.A.Sc., M.A., Assistant Professor of Applied Mechanics.
- Robert William King, B.Sc., Lecturer in Electrical Engineering.
- Ewald Oscar Lilge, M.Sc., to Head of Department of Mining and Metallurgy.
- D. H. Kelly, B.Sc., Sessional Instructor in Electrical Engineering.
- William Jubien, Sessional Instructor in Civil Engineering.
- Lambert R. Lauer, Sessional Lecturer in Civil Engineering.
- Allan W. Peterson, Sessional Lecturer in Civil Engineering.
- J. P. Verschuren, Sessional Lecturer in Civil Engineering.
- R. B. Erb, Sessional Lecturer in Civil Engineering.
- Lloyd Roebuck, Sessional Instructor in Mining and Metallurgy.
- A. R. S. Leitch, Sessional Instructor in Petroleum Engineering.
- J. M. C. Henry, Sessional Instructor in Electrical Engineering.
- John Wardlaw Porteous, M.Sc., from Associate Professor to Professor of Electrical Engineering.
- David Panar, M.Sc., from Assistant to Associate Professor of Mechanical Engineering.
- Stewart Ronald Sinclair, M.Sc., from Assistant to Associate Professor of Civil Engineering.
- Andrew Lee Scott, B.A.Sc., M.A.Sc., from Assistant to Associate Professor of Chemical Engineering.
- Peter Michael Dranchuk, B.Sc., from Lecturer to Assistant Professor of Petroleum Engineering.
- Robert William King, B.Sc., from Lecturer to Assistant Professor of Electrical Engineering.

Faculty of Law

- Peter M. Owen, Sessional Instructor in Law.

Faculty of Medicine

- Charles William Nash, M.Sc., Ph.D., Associate Professor of Pharmacology.
- Curt Adolphe Carl Hoehne, M.D., Assistant Professor of Anatomy.
- John William Carmichael, B.Sc., M.Sc., M.A., Ph.D., Assistant Professor of Mycology.
- Douglas Morris Asp, Instructor in Pathology.
- George T. Moonie, M.D., Sessional Instructor in Anaesthesiology.
- Gordon D. Brown, M.D., Sessional Instructor in Clinical Medicine.
- Angus Boyd, M.D., Sessional Instructor in Obstetrics and Gynecology.
- Joseph Bugis, M.D., Sessional Instructor in Obstetrics and Gynecology.
- James L. Paterson, M.D., Sessional Instructor in Psychiatry.
- Z. Selinger, M.D., Sessional Instructor in Psychiatry.
- P. C. Racette, M.D., Sessional Instructor in Clinical Surgery.
- Glen M. Martin, M.D., Sessional Instructor in Pathology.
- Konstantine Kowalewski, Assistant Professor in Experimental Surgery.
- Allan Greenwood Stewart, M.A., Ph.D., from Assistant to Associate Professor of Biochemistry.
- Cleeve Russell Amies, M.B., B.S., M.D., D.T.M. & H., L.R.C.P., M.R.C.P., M.R.C.S., from Associate Professor of Bacteriology to Professor of Virology.

School of Commerce

- Boris Gardave, B.Mch.Eng., M.B.A., Assistant Professor of Business Administration.
Denis Goodale, B.Com., C.A., from Assistant to Associate Professor of Accounting.

School of Physical Education

- June Holman, B.Ed., Instructor in Physical Education (Calgary Branch).
M. Richer, Sessional Instructor in Physical Education.
Patricia Louise Austin, B.P.H.E., M.A. in Phys. Ed., from Assistant to Associate Professor of Physical Education.
Doris Louise White, B.Ed., from Lecturer to Assistant Professor of Physical Education.
Alan Ferguson Affleck, B.P.H.E., from Lecturer to Assistant Professor of Physical Education.

Library

- Bonney White, B.A., B.L.S., Library Assistant.
Phyllis F. Morgan, B.A., B.L.S., Library Assistant.
Yvonne Fenton, B.A., A.L.A., Library Assistant.

Department of Extension

- Ronald William Nablo, B.A., Supervisor of the Division of Visual Instruction.
Darroch Duncan Campbell, B.Com., B.A., from Assistant to Associate Professor of Extension.

Other Appointments

- Willard Finlay Allen, B.Sc., M.A., Ph.D., Assistant to the Director, Calgary Branch.

Table III—Leave of Absence

- Victor Ernest Graham, B.A., M.A., Ph.D., Associate Professor of French (Calgary Branch).
Elizabeth Louise Empey, B.Sc., Dietitian, University Residence and Instructor in Household Economics.
Lorene Louise Kennedy, B.Sc., M.Sc., Assistant Professor of Botany.
John Allison Forbes, M.Ed., Assistant Professor of Education (Art).
Howard Byron Barnett, A.R.C.T., B.A., Mus.Bac., Assistant Professor of Education (Music), (Calgary Branch).
William George Hardy, M.A., Ph.D., Professor of Classics.
Hazel McIntyre, B.Sc., M.S., Associate Professor of Household Economics.
Anthony Manuel Mardiros, M.A., M.Litt., Associate Professor of Philosophy.
Robert Edward Folinsbee, B.Sc., M.A., Ph.D., Associate Professor of Geology.

Table IV—Retirements

- John William Campbell, M.A., Ph.D., F.R.S.C., Professor of Mathematics.
Karl Adolph Clark, M.A., Ph.D., Professor of Metallurgy.
Ibrahim Follansbee Morrison, B.Sc., Professor of Applied Mechanics.
Edgar Harold Strickland, M.Sc., F.E.S.A., F.R.S.C., Professor of Entomology.

Table V—Resignations

H. Grant Sampson, B.A., A.Mus., Extension Lecturer in Music.
Alfred Edwin Harper, M.Sc., Assistant Professor of Biochemistry.
William Christopher Stewart, B.A., M.A., M.D., C.M., Associate Professor of Physiology and Pharmacology.
Robert Foster Scott, B.Sc., M.D., Instructor in Pathology.
Margaret Visser, B.Ed., Instructor in Health and Physical Education (Calgary Branch).
Robert Ellsworth Rees, Associate Professor of Education.
Phyllis Russell, Library Assistant.
Roy Henry Desmond Harris, M.Sc., Lecturer in Anatomy.
Thomas Frank Wise, M.A., Lecturer in Political Economy.
Thomas Campbell Michie, M.D., Lecturer in Psychiatry.
Randall Roberts MacLean, M.D., F.A.P.A., Clinical Professor in Psychiatry.
Elizabeth Louise Empey, B.Sc., Dietitian, University Residence and Instructor in Household Economics.
Paul G. Rooney, B.Sc., P.h.D., Assistant Professor in Mathematics.
R. W. Sherbaniuk,
Gordon Barry Pierce, Instructor in Pathology.
Marguerite Epp., B.Sc., Instructor in Bacteriology.
Harold Vincent Rice, Professor of Physiology.
Allan Greenwood Stewart, M.A., Ph.D., Associate Professor of Biochemistry.
Bonney White, B.A., B.L.S., Library Assistant.
Arthur Brian Weston, L.L.B., B.C.L., Assistant Professor of Law.

Table VI—Gifts

From the National Grain Company, a grant of \$1,000 for research under Dr. W. G. Corns.

From the Alberta Seed Growers' Cooperative Ltd., \$500 for research in the Department of Plant Science.

From the United Grain Growers Limited, \$600 for research in the Poultry Division, Department of Animal Science.

From the Interprovincial Pipe Line Co., \$200 for research being carried on under the Interprovincial Pipe Line Fellowship.

From the Prairie Roadbuilders Section, Canadian Construction Association, \$1,000 for highway research.

From the Mount Royal Collieries Limited, \$200 for research under the direction of Dr. D. B. Robinson.

From the University Musical Club, \$75 to the Music Listening Room, Rutherford Library.

From the Line Elevators Farm Service, \$2,000 for research in the Department of Plant Science.

From the California Spray-Chemical Corporation, \$1,000 for research under the direction of Dr. A. W. Henry.

From the Canadian Foundation for the Advancement of Pharmacy, \$500 for research in the School of Pharmacy.

From Science Service, Dominion Dept. of Agriculture, research grants of \$500 for cooperative vegetable trials under the direction of Dr. R. J. Hilton; \$1,000 and \$250 for research under the direction of Dr. J. Unrau; \$500 for research under the direction of F. W. Wood.

From the Senior Class of 1954, \$110 to buy furniture for the waiting room in the Infirmary.

From the French Consul at Vancouver, a gift of books to the Rutherford Library.

From the United Commercial Travellers, \$1,702.98 to the Dr. J. M. McEachern Laboratory.

From the Molony Electric Company, two transformers to the Department of Electrical Engineering.

From Canadian General Electric Company Ltd., two transformers to the Department of Electrical Engineering.

From the Barley Improvement Institute, \$3,500 for research in the Department of Plant Science.

From the Interprovincial Pipe Line Company, \$850 to purchase low temperature circulating bath in connection with the Interprovincial Pipe Line Fellowship.

From the Lederle Laboratories Division, American Cyanamid Company, \$1,200 for the Lederle Medical Student Research Fellowships.

From the Terasurer of the United States, Department of the Navy, \$400 for J. Opsahl Medical Research.

From the Canadian Life Insurance Officers' Association, \$3,000 for the Association's Medical Fellowship.

From the Glenbow Foundation, \$3,000 for research in the Department of Plant Science.

From the Glenbow Foundation, \$3,000 to the Faculty of Agriculture.

From the Robin Hood Flour Mills Ltd., Calgary, \$1,000 for research in the Department of Plant Science.

From the Maple Leaf Milling Co. Ltd., \$500 for research in the Department of Plant Science.

From the Consolidated Mining and Smelting Co. of Canada Ltd., \$500 for research in the Department of Soil Science.

From Sharp & Dohme, Research Laboratories, \$3,000 for research by Dr. J. Opsahl.

From the Ellison Milling Elevator Company Ltd., \$250 for research on Soft Wheat.

From Imperial Oil Limited, \$2,500 to the Banff School of Fine Arts.

From an anonymous donor, \$100 to the President's fund.

From the College of Physicians and Surgeons, \$300 to the Medical Library.

From Dr. C. R. Stelck, a set of *Palaeontologie Von Timor* to the Rutherford Library.

From Dr. Baden H. Powell, \$50 to the Post-Graduate Scholarship Fund in Dentistry.

From Mr. N. D. McDermid, \$1,000 to the University, purpose of the fund to be designated by the donor.

From the Edmonton Civic Employees' Welfare Chest Fund, \$5,000 to the Dr. John S. McEachern Cancer Research Laboratory.

From the Friends of the University, a set of six volumes on mycology by Brefeld, to the Rutherford Library.

From the George E. Failing Supply Co. Ltd., \$300 assistance to a needy student in Petroleum Engineering and Geology.

From the Alberta Oil Tool Co. Ltd., \$300 assistance to a needy student in Engineering.

From Mr. Claude Gallinger, two shorthorn steers.

From the United Grain Growers Limited, \$500 to the Plant Science Department.

From the College of Physicians and Surgeons, photostatting machines for the Rutherford Library.

From the Community Planning Association of Canada, Alberta Division, a gift of books.

From Mr. Melville C. Wood, a Hereford steer calf.

From Western Leaseholds Ltd.; Regent Drilling Co., Texaco Exploration Co., Thorson Oilfield Cementing Co., Halliburton Oilwell Cementing Co., Lane-Wells Canadian Company, Socony Vacuum Oil Co. of Canada Ltd., Schlumberger Well Surveying Corp., a demonstration well to the Department of Petroleum and Chemical Engineering.

From President Sidney Smith, University of Toronto, text and recording of address by the Right Honorable Arthur Meighen.

From the Alberta Dental Association, \$195.60 for a minometer.

From Sherritt Gordon Mines Ltd., and Harrison & Crosfield (Canada) Ltd., \$2,000 for research in the Department of Soil Science.

From Mrs. Irene Gonsett, \$250 for purchase of books for the Gonsett Collection.

From the Canadian Jewish Congress, a volume entitled "Code of Hebrew Law" to the Rutherford Library.

From the Provincial Department of Agriculture, \$1,100 for research in the Department of Plant Science.

From the Eldorado Mining and Refining Ltd., \$16,100 for a research grant for Professor Lilge.

From the Graduating Class of 1955, \$110 for equipment in the Music Room, Rutherford Library.

From the Alberta Home Economics Association, \$400 to the Mabel Patrick Award fund.

From the Pembina Pipe Line Ltd., \$600 for research and investigation of certain properties of Pembina crude oil.

From the Government of the Province of Alberta, \$2,500 to the Banff School of Fine Arts Jubilee Scholarship fund.

From the Alberta Women's Institute, \$1,000 for photographic equipment in the McEachern Cancer Research Laboratory.

From the Provincial Department of Agriculture, \$5,000 towards establishment of a soil and feed testing laboratory in the Faculty of Agriculture.

From the Federal Department of Labour, \$900 for a study of conciliation and arbitration under the Alberta Labour Act.

From the Alberta Pharmaceutical Association, an inter-departmental telephone system for the Faculty of Pharmacy.

From the Museum, Bogata, Columbia, two volumes on the Indian Culture of Columbia.

To the Friends of the University, \$1,745.

From the Canadian Cancer Society, Alberta Division, \$48,839.77 for research at the University.

To the Medical Class of 1941 Loan Fund, \$110.

From the National Cancer Institute of Canada, \$25,541.18 for research and equipment at the University.

To the Banff Scholarship Fund, \$3,055.

To the Alberta Educational Research Fund, \$4,991.

From the Department of National Defence, \$11,192 for research projects at the University.

From the Department of Agriculture, Government of Canada, \$20,600 for research in the Faculty of Agriculture.

From the National Research Council, \$77,452.06 for research projects at the University.

To the Postgraduate Scholarship Fund in Dentistry, \$180.

Table VII—New Scholarships and Prizes

The Richard Hillary Memorial Fellowship.

From the Duke of Edinburgh Chapter, I.O.D.E., a bursary of \$200 to a student entering the four-year degree course in the Faculty of Education.

From the International College of Dentists, an annual scholarship of \$100 for award to a graduating student for outstanding merit in all studies in the Faculty of Dentistry.

From the Entomological Society of Alberta, an annual prize of \$50 to the student obtaining the highest standing in one or more senior courses in the Department of Entomology.

From CCH Canadian Limited, a prize of a one-year complimentary subscription to the Canadian Tax Reporter (valued at \$76) to the student obtaining the highest standing in the taxation course in the LLB. program.

From the P.E.O., Calgary, a prize of \$75 for award to a woman student at the Calgary Branch who achieves the best record in the first or second year of the secondary route of the B.Ed. program.

From the National Carbon Company, an undergraduate scholarship of \$500 payable to a student selected by the University on the basis of good scholastic standing, personal reputation, and financial need who intends to enter a career in business or industry.

From the Alberta Command, Canadian Legion B.E.S.L. Chapter, through the Canadian Foundation for Poliomyelitis, six bursaries of \$350 each for students entering the Physiotherapy course.

From the Alberta Institute of Agrolologists, a scholarship of \$200 in first-year Agriculture.

Through the German Consul in Western Canada, the German Government Prize in books offered annually to the two senior students with outstanding merit in German 54 and German 57 or 72.

From Messrs. L. G. Thomas and F. D. Blackley, the Morden Heaton Long Prize of \$25, to be awarded annually to the student with the highest standing in British History.

From the Canadian Life Insurance Officers' Association, \$3,000 for the Association's Medical Fellowship for 1954.

From the Franki Compressed Pile Company of Canada Ltd., \$1,000 for the Franki Fellowship for 1954-55.

From Dr. Thomas J. Cottee, Sydney, Australia, \$50 for the Bulyea-Gilchrist Prize in Dentistry.

From the Alberta Pharmaceutical Association, the two prizes each previously offered increased to \$100 and to be known as the Alberta Pharmaceutical Association Scholarships.

From the Seismic Service Supply Ltd., \$1,000 bursary in the Engineering, Physics or Geology fields.

From Mr. Fred Stapells, Calgary, the Fred Stapells Scholarship 1955 of \$150 offered annually to a first year student of outstanding merit in the pre-professional work at the University of Alberta.

From the Women's Canadian Club of Edmonton, the "Women's Canada Club of Edmonton Bursary" of \$100 to be awarded annually to a new Canadian undergraduate student who has successfully completed at least one year in any faculty or school at the University.

From General Motors of Canada Ltd., two scholarships per year covering expenses of a freshman student for four years, within a range of \$200 to \$2,000 per year.

From the Canadian Physiotherapy Association, Book Prize to a student of outstanding merit in the final year of the Diploma course.

P.E.O. Sisterhood prize increased from \$75 to \$80.

First Year Prize of the Education Society of Edmonton increased from \$50 to \$100.

From St. Hilda's Trust Fund, two matriculation scholarships of \$300 each and one leaving scholarship of \$400.

From the International College of Dentists (Canadian Section) a scholarship valued at \$100 to a student completing the third year of Dentistry.

From the Edmonton Jewish Community Council, a scholarship of \$100 to the student of outstanding merit in the second year of general B.Ed. program with options in Household Economics.

From Robertson United Church, \$100 scholarship to be awarded to a student of outstanding merit who is graduating with the degree of B.D.

From MacMillan and Bloedel Ltd., Vancouver, under the Sylvaply Plan Competition, \$150 prize in the Faculty of Agriculture.

From the Canadian Institute of Mining and Metallurgy, \$15 prize for the best student paper on Petroleum.

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Table IX—Student Registration

TOTAL REGISTRATION Full Session, Summer Ses- sion, Evening Divis. and Short Courses	1st Year				2nd Year				3rd Year				4th Year				5th Year				Not Stated			
	54-55		55-56		54-55		55-56		54-55		55-56		54-55		55-56		54-55		55-56		54-55		55-56	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1. Arts and Science Edmonton																								
B.A.	34	45	60	52	38	32																		
B.Sc.	112	27	105	27	69	32																		
B.A., B.Com.																								
B.A., B.Sc. (Eng.)					1																			
B.A., LL.B.	30	3	23	2																				
Pre-dental	25	1																						
Dip. in Art		1																						
	201	77	188	83	108	64																		
Partials—regular																								
Partials—Evening Div.																								
Calgary																								
B.A.	7	8																						
B.Sc.	16																							
B.A., LL.B.	3																							
Pre-dental	3																							
	29	8																						
Partials—regular																								
Partials—evening																								
Lethbridge																								
Partials—Evening																								
Medicine Hat																								
Partials—Evening																								
A. & Sci. Full Time	230	85	188	83	108	64																		
	24		26	2	16																			
2. Agriculture																								
Partials																								
	87	84	4	3	91	87																		
	1				1																			

3. Commerce	Edmonton	37	7	28	3	29	4	37	94	14	14	14	107	108
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Evening Division	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Calgary	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	7
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
4. Dentistry	Edmonton	44	7	28	3	29	4	.....	.....	.....	.....	.....	6	2
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Evening Division	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Calgary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5. Education	Edmonton	31	.....	29	.....	30	1	26	1	.....	.....	.....	116	118
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Evening Division	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Calgary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6. Engineering	Civil	50	.....	73	.....	54	.....	36	.....	.....	.....	.....	166	213
	Chemical	38	.....	44	.....	37	.....	11	.....	.....	.....	.....	121	130
	Electrical	39	.....	37	.....	28	.....	17	.....	.....	.....	.....	94	121
	Mining	5	.....	11	.....	10	.....	5	.....	.....	.....	.....	27	31
	Petroleum	11	.....	11	.....	22	.....	17	.....	.....	.....	.....	58	61
7. Medicine	Irrigation	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Engineering	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Phys. Geol.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Engineering	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Not specified	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8. Full-Time	Edmonton	155	389	79	131	37	39	54	50	.....	.....	.....	286	935
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Evening Division	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Calgary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Partials	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table IX—Student Registration—Continued

	1st Year 54-55		2nd Year 54-55		3rd Year 54-55		4th Year 54-55		5th Year 54-55		Not Stated 54-55		Males 53-54		Females 54-55		TOTALS 53-54 54-55	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	53-54	54-55	53-54	54-55	53-54	54-55
7. Household Econ. B.Sc., H.Ec. B.H.Ec.	31	2	22	2	23	1									67	76	67	76
															3	5	3	5
Partials	33		24		24										70	81	70	81
															1		1	
8. Law	33	1	37	1	25	3							94	95	5	5	99	100
9. Medicine B.Sc.	56	1	51	5	56	2	53	3					218	216	13	11	231	227
													1				1	
Full-time Partials							53	3					219	216	13	11	232	227
													1				1	
10. Nursing—Edmonton B.Sc. Diploma Dip. in Pub. Health Dip. in T. & Sup. Full-time—Edmonton Calgary B.Sc. in Nurs. Partials Nursing—Full time Lethbridge Partials (Nurs.)	38 108		17 85		22 59		21		18 7 6						100 214 9 13	116 252 7 6	100 214 9 13	116 252 7 6
															336	381	336	381
	3															3		3
																1		1
	149		102		81		21		31						336	384	386	384
															1		1	
11. Dip. in Physiotherapy	18														18			18
12. Pharmacy B.Sc. Partials	26	9	31	12	35	6							92	92	25	27	117	119
													4	2	1		4	3
13. Graduate Studies M.A. M.Sc. (Arts) M.Sc. (Agric.) M.Sc. (Engin.) M.Sc. (Pharm.) M.Sc. (Medicine)													29	22	7	9	36	31
													24	27	2		26	27
													10	12			10	12
													13	19			13	19
													2	3			2	3
													5	3	2		7	3

M.Ed.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Table X—Distribution of Students According to Age and Sex

Age	Male	Female	Total
16	10	8	18
17	106	150	256
18	299	397	696
19	402	303	705
20	371	243	614
21	295	149	444
22	274	69	343
23	215	49	264
24	151	22	173
25	91	15	106
26	79	22	101
27	55	14	69
28	59	15	74
29	44	10	54
30	20	19	39
31	33	4	37
32	17	13	30
33	21	9	30
34	18	13	31
35	16	9	25
36	16	6	22
37	7	8	15
38	13	13	26
39	7	5	12
40	13	9	22
41	12	7	19
42	10	6	16
43	6	8	14
44	6	7	13
45	6	7	13
46	5	10	15
47	8	8	16
48	5	3	8
49	---	5	5
50	1	5	6
51	1	3	4
52	2	4	6
53	---	1	1
54	3	2	5
55	---	2	2
56	---	2	2
58	1	---	1
59	1	---	1
60	---	1	1
61	---	1	1
62	---	2	2
65	1	---	1
66	---	1	1
69	---	1	1
Not stated	1	1	2
	<hr/> 2701	<hr/> 1661	<hr/> 4362

Table XI—Classification of Students According to Religious Denomination

<i>Session 1954-55</i>	
Anglican	497
Baptist	166
Christian Science	9
Church of Christ	6
Church of Nazarene	8
Greek Catholic	69
Greek Orthodox	209
Hebrew	90
Latter Day Saints	111
Lutheran	243
Methodist	1
Presbyterian	157
Protestant (church not specified)	44
Roman Catholic	684
Russian Orthodox	2
Seventh Day Adventist	5
Ukrainian Orthodox	45
United	1712
Others	161
Not Specified	143
	<hr/> 4362

Table XII

Distribution of Students According to Sex and Marital Status

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Single	2228	1542	3770
Married	471	96	567
Divorced	1	4	5
Widowed	1	19	20
	<hr/> 2701	<hr/> 1661	<hr/> 4362

Table XIII—Distribution of Students According to Birthplace of Father

Session 1954-55

A. British Empire-Commonwealth

(a) Canada

Alberta: Edmonton	71
Calgary	50
Lethbridge	13
Medicine Hat	13
Red Deer	14
Vegreville	8
Wetaskiwin	13
Camrose	5
Cardston	14
Grande Prairie	1
On or North of Twp. 38	190
South of Twp. 38	108
Not specified	43

543

Canada—not otherwise specified	96	
Newfoundland	2	
Nova Scotia	78	
Prince Edward Island	37	
New Brunswick	51	
Quebec	92	
Ontario	550	
Manitoba	177	
Saskatchewan	123	
British Columbia	39	
Yukon and N.W.T.	4	
	<hr/>	1792
(b) <i>Other Parts of the British Empire-Commonwealth</i>		
British Isles (including Eire)	759	
Dominions (S. Africa, New Zealand, Australia)	4	
All other Br. colonies, dependencies and members of the Commonwealth (including India, Pakistan, Ceylon, Rhodesia, Kenya, Guiana, etc.)	15	
	<hr/>	778
B. <i>Countries Outside the British Empire-Commonwealth</i>		
United States of America	507	
Poland and Czechoslovakia	233	
Russia and Ukraine	336	
Balkan States (Yugoslavia, Roumania, Bulgaria, Albania, Greece, Turkey)	59	
Scandinavian States (Sweden, Norway, Denmark, Iceland, Finland)	143	
Germany, Austria (including Austria-Hungary)	209	
France	13	
Hungary	32	
China and Japan	56	
Holland	40	
Others	71	
	<hr/>	1699
C. <i>Information not specified</i>		93
	<hr/>	
TOTAL		4362
	<hr/>	

Table XIV—Distribution of Students According to Father's Occupation
Session 1954-55

<i>Occupational Classification and Occupation</i>	<i>Number</i>	<i>Totals</i>
<i>Professional</i>		
Accountants, Auditors	47	
Dentists	22	
Doctors	65	
Lawyers	61	
Ministers	49	
Pharmacists, druggists	28	
Professors, teachers	125	
Engineers and Land Surveyors	66	
Others	22	
	<hr/>	485

<i>Business and Finance</i>	
Garage, service station managers and employees	57
Grain, oil, implement agents, livestock dealers, Hotelkeepers, restaurateurs and employees (including Motels)	73
Insurance, real estate, bond salesmen, stockbrokers	86
Retail Merchants, grocers, shopkeepers, clerks	221
Bank employees	27
Wholesale managers, Clerks, Warehousemen	58
Salesmen, Commercial Travellers, Manufacturers' Agents	78
Advertising	8
Others	98
	<hr/> 816
<i>Industry</i>	
Assayers, Industrial Chemists	2
Bakers, brewers	16
Dairy and creamery owners and employees	21
Farmers, ranchers, dairy farmers, poultry farmers and market gardeners	1117
Contractors, builders	71
Manufacturers, factory foremen, employees, etc.	48
Lumberman, building supplies, etc.	31
Oil and Coal industry, Managers and employees	98
Meat packing managers, employees	21
Transportation owners, managers and employees	198
Others	28
	<hr/> 1651
<i>Artisans and Skilled Tradesmen</i>	
Barbers, hair dressers	15
Carpenters, masons, bricklayers, plasterers, floor finishers	79
Electricians, radio repair, etc.	14
Mechanics, locksmiths, gunsmiths, etc.	45
Metal workers, welders, tinsmiths, blacksmiths	20
Machinists, lathe operators	15
Painters and decorators	10
Plumbers, gas and steam fitters	18
Tailors, pressers, cleaners and dyers, shoemakers	10
Laborers, watchmen	47
Others	68
	<hr/> 341
<i>Government Service</i>	
Civic or Municipal Employees	57
Provincial Government Employees	71
Dominion Government Employees	82
Armed Services	10
Members of Provincial and Dominion Parliament	4
Judges and Magistrates	5
	<hr/> 229
Retired	301
Deceased	466
Not specified	73
	<hr/>
TOTAL	4362
	<hr/>

Table XV—Distribution of First Year Students Not Previously in Attendance According to Faculty and Home Address

ATTENDING EDMONTON		
EDMONTON AND NORTH OF TOWNSHIP 38		
FACULTY AND HOME ADDRESS		
<i>Arts and Science</i>		
<i>B.A.</i>		
Edmonton	38	
Red Deer	1	
Grande Prairie	1	
On or North of Twp. 38	14	
	<hr/>	54
<i>B.Sc.</i>		
Edmonton	60	
Red Deer	2	
Wetaskiwin	2	
Camrose	2	
Others—on or North of Twp. 38	29	
	<hr/>	95
<i>B.A.,LL.B.</i>		
Edmonton	9	
Vegreville	1	
Camrose	1	
Others—on or North of Twp. 38	8	
	<hr/>	19
<i>Pre-dent</i>		
Edmonton	3	
Red Deer	2	
Others—on or North of Twp. 38	8	
	<hr/>	13
<i>Diploma in Art</i>		
Edmonton	1	
	<hr/>	1
<i>Agriculture—B.Sc.</i>		
Edmonton	2	
Others—on or North of Twp. 38	11	
	<hr/>	13
<i>Commerce—B.Com.</i>		
Edmonton	15	
Vegreville	1	
Others—on or North of Twp. 38	7	
	<hr/>	23
<i>Education—B.Ed., 4-year course</i>		
Edmonton	25	
Red Deer	1	
Wetaskiwin	1	
Camrose	3	
Grande Prairie	1	
Otherson or North of Twp. 38	36	
	<hr/>	67

<i>B.Ed. in Phys. Ed.</i>		
Edmonton	3	
Others—on or North of Twp. 38	3	
	<hr/>	6
<i>Junior E.</i>		
Edmonton	23	
Red Deer	2	
Vegreville	1	
Wetaskiwin	2	
Grande Prairie	5	
Others—on or North of Twp. 38	167	
	<hr/>	200
<i>Engineering</i>		
<i>B.Sc. in Civil Engineering</i>		
Edmonton	9	
Red Deer	1	
Others—on or North of Twp. 38	9	
	<hr/>	19
<i>B.Sc. in Chemical Engineering</i>		
Edmonton	13	
Others—on or North of Twp. 38	4	
	<hr/>	17
<i>B.Sc. in Electrical Engineering</i>		
Edmonton	15	
Grande Prairie	1	
Others—on or North of Twp. 38	8	
	<hr/>	24
<i>B.Sc. in Mining Engineering</i>		
Edmonton	1	
Others—on or North of Twp. 38	1	
	<hr/>	2
<i>B.Sc. in Petroleum Engineering</i>		
Edmonton	3	
Others—on or North of Twp. 38	2	
	<hr/>	5
<i>Not specified (Engineering)</i>		
Edmonton	36	
Red Deer	4	
Vegreville	2	
Camrose	1	
Grande Prairie	2	
Others—North of Twp. 38	49	
	<hr/>	94
<i>Household Economics</i>		
<i>B.Sc.</i>		
Edmonton	9	
Grande Prairie	1	
Others—North of Twp. 38	11	
	<hr/>	21
<i>B.H.Ec.</i>		
Others—North of Twp. 38	2	
	<hr/>	2

<i>Law—LL.B.</i>		
Edmonton	1	
	—	1
<i>Physiotherapy</i>		
Edmonton	9	
Others—North of Twp. 38	3	
	—	12
<i>Nursing</i>		
<i>B.Sc.</i>		
Edmonton	10	
Others—on or North of Twp. 38	13	
	—	23
<i>Diploma</i>		
Edmonton	33	
Red Deer	4	
Camrose	7	
Grande Prairie	1	
Others—on or North of Twp. 38	37	
	—	82
<i>Pharmacy—B.Sc.</i>		
Edmonton	7	
Vegreville	1	
Others—on or North of Twp. 38	13	
	—	21 814

ATTENDING EDMONTON

CALGARY AND SOUTH OF TOWNSHIP 38

FACULTY AND HOME ADDRESS

Arts and Science

<i>B.A.</i>		
Calgary	3	
Lethbridge	1	
Medicine Hat	1	
Cardston	1	
Others—South of Twp. 38	7	
	—	13
<i>B.Sc.</i>		
Calgary	8	
Lethbridge	3	
Medicine Hat	3	
Others—South of Twp. 38	17	
	—	31
<i>B.A.,LL.B.</i>		
Calgary	1	
Lethbridge	1	
Others—South of Twp. 38	6	
	—	8

<i>Pre-dental</i>		
Calgary	1	
Lethbridge	1	
Medicine Hat	2	
Cardston	1	
Others—South of Twp. 38	6	
	—	11
<i>Agriculture—B.Sc.</i>		
Calgary	1	
Medicine Hat	1	
Others—South of Twp. 38	4	
	—	6
<i>Commerce—B.Com.</i>		
Calgary	7	
Others—South of Twp. 38	5	
	—	12
<i>Dentistry</i>		
Calgary	1	
	—	1
<i>Education</i>		
<i>B.Ed.—4-year course</i>		
Calgary	2	
Lethbridge	3	
Others—South of Twp. 38	16	
	—	21
<i>B.Ed. in Phys. Ed.</i>		
Others—South of Twp. 38	3	
	—	3
<i>Junior E.</i>		
Calgary	1	
Lethbridge	2	
Medicine Hat	4	
Cardston	3	
Others—South of Twp. 38	27	
	—	37
<i>Engineering</i>		
<i>Civil</i>		
Calgary	8	
Lethbridge	1	
Others—South of Twp. 38	6	
	—	15
<i>Chemical</i>		
Calgary	6	
Lethbridge	5	
Others—South of Twp. 38	4	
	—	15
<i>Electrical</i>		
Calgary	2	
Lethbridge	1	
Others—South of Twp. 38	7	
	—	10

<i>Petroleum</i>			
Calgary	2		
Medicine Hat	1		
Others—South of Twp. 38	1		
		—	4
<i>Engineering Physics</i>			
Calgary	1		
Others—South of Twp. 38	1		
		—	2
<i>Engineering Geol.</i>			
Calgary	1		
Lethbridge	1		
		—	2
<i>Not specified</i>			
Calgary	16		
Lethbridge	6		
Medicine Hat	2		
Others—South of Twp. 38	25		
		—	49
<i>Household Economics—B.Sc.</i>			
Calgary	3		
Lethbridge	1		
Others—South of Twp. 38	6		
		—	10
<i>Law</i>			
Calgary	1		
		—	1
<i>Physiotherapy—Diploma</i>			
Calgary	1		
Others—South of Twp. 38	1		
		—	2
<i>Medicine</i>			
Lethbridge	1		
Others—South of Twp. 38	1		
		—	2
<i>Nursing—B.Sc.</i>			
Calgary	2		
Lethbridge	2		
Others—South of Twp. 38	4		
		—	8
<i>Diploma in Nurs.</i>			
Calgary	3		
Others—South of Twp. 38	11		
		—	14
<i>Dip. in Teach. and Supervision</i>			
South of Twp. 38	1		
		—	1
<i>Pharmacy—B.Sc.</i>			
Lethbridge	3		
Others—South of Twp. 38	5		
		—	8

ATTENDING EDMONTON

OTHER PROVINCES

FACULTY AND HOME ADDRESS

Arts and Science

B.A.—British Columbia	1	
B.Sc.—Saskatchewan	2	1
B.Sc.—British Columbia	2	
B.A.,LL.B.—Saskatchewan	2	4
Pre-dental—Ontario	1	2
		1

Agriculture

Saskatchewan	2	
		2

Commerce

Saskatchewan	3	
		3

Dentistry

Manitoba	3	
Saskatchewan	6	
British Columbia	6	
		15

Education

B.Ed.—4 year—Saskatchewan	1	
Junior E—Saskatchewan	1	1
Junior E.—British Columbia	2	
		3

Engineering

Civil—Saskatchewan	1	
Civil—British Columbia	1	
		2
Chemical—British Columbia	1	
		1
Petroleum—British Columbia	1	
		1
Not specified (Engin.)—Ontario	1	
Not specified (Engin.)—Manitoba	2	
Not specified (Engin.)—Saskatchewan	3	
Not specified (Engin.)—British Columbia	1	
		7

Physiotherapy

Diploma—Saskatchewan	1	
Diploma—British Columbia	1	
		2

Medicine

Saskatchewan	1	
		1

<i>Nursing—</i>		
B.Sc.—Manitoba	2	
B.Sc.—Saskatchewan	1	
B.Sc.—British Columbia	1	
	<hr/>	4
Diploma in Nurs.—Saskatchewan	1	
Diploma in Nurs.—British Columbia	2	
	<hr/>	8
		<hr/>
		58

ATTENDING EDMONTON

OTHER COUNTRIES AND UNSPECIFIED

<i>Arts and Science</i>		
B.A.—United States of America	1	
<i>Agriculture</i>		
Other countries	1	
<i>Engineering</i>		
Electrical—Other British Colonies, dependencies and members of the Commonwealth (including India, Pakistan, Ceylon, Rhodesia, Kenya, Guiana, etc.)	1	
Electrical—not specified	1	
Not specified (Engin.)—Holland	1	
B.A.—Not specified	1	
<i>Engineering</i>		
Elect.—Alberta—not specified	1	
Elect.—Alberta—not specified	1	
<i>Nursing</i>		
Alberta—not specified	1	

ATTENDING CALGARY

EDMONTON AND NORTH OF TOWNSHIP 38

<i>Arts and Science</i>		
B.A.—Wetaskiwin	1	
B.Sc.—Edmonton	1	
<i>Education</i>		
B.Ed. in Ind. Arts—Edmonton	2	
B.Ed. in Ind. Arts—On or North of Twp. 38	1	
Junior E.—Others—on or North of Twp. 38	6	
	<hr/>	11

CALGARY AND SOUTH OF TOWNSHIP 38

<i>Arts and Science</i>		
B.A.—Calgary	10	
B.A.—Others South of Twp. 38	2	
	<hr/>	12
B.Sc.—Calgary	9	
B.Sc.—Others South of Twp. 38	3	
	<hr/>	12
B.A.,LL.B.—Calgary	3	
	<hr/>	3

Pre-dental—Calgary	1	
Pre-dental—Others— <i>South</i> of Twp. 38	2	
	<hr/>	3
Commerce—B.Com.—Calgary	6	
	<hr/>	6
<i>Education</i>		
B.Ed.—4 year—Calgary	12	
B.Ed.—4 year—Others— <i>South</i> of Twp. 38	3	
	<hr/>	15
B.Ed. in Ind. Arts—Calgary	2	
B.Ed. in Ind. Arts—Lethbridge	1	
B.Ed. in Ind. Arts—Others— <i>South</i> of Twp. 38	2	
	<hr/>	5
Junior E.—Calgary	32	
Junior E.—Lethbridge	7	
Junior E.—Medicine Hat	2	
Junior E.—Cardston	1	
Junior E.—Others— <i>South</i> of Twp. 38	103	
	<hr/>	145
<i>Nursing—</i>		
B.Sc.—Cardston	1	
B.Sc.—Others— <i>South</i> of Twp. 38	2	
	<hr/>	3

ATTENDING CALGARY
OTHER PROVINCES

<i>Arts and Science</i>		
B.Sc.—Saskatchewan	1	
<i>Education</i>		
B.Ed.—4 year—Saskatchewan	1	
Junior E.—Saskatchewan	2	
Junior E.—British Columbia	1	
Junior E.—Alberta—not specified	3	
	<hr/>	8

Table XVI—Distribution of Students According to Faculty and Home Address

ATTENDING EDMONTON

FACULTY AND HOME ADDRESS

<i>Arts and Science—Alberta</i>		
Edmonton	330	
Calgary	86	
Lethbridge	16	
Medicine Hat	14	
Red Deer	19	
Vegreville	5	
Wetaskiwin	7	
Camrose	6	
Cardston	6	
Grande Prairie	1	
Others—on or <i>North</i> of Twp. 38	159	
Others— <i>South</i> of Twp. 38	96	
	<hr/>	745

Ontario	3	
Saskatchewan	11	
British Columbia	10	
Yukon and N.W.T.	1	
	<hr/>	770
United States of America	3	
Not specified	3	
	<hr/>	
TOTAL		774
		<hr/>

Agriculture

Edmonton	24	
Calgary	2	
Medicine Hat	1	
Red Deer	1	
Others—on or North of Twp. 38	27	
Others—South of Twp. 38	27	
	<hr/>	82
Saskatchewan	2	
British Columbia	2	
Others	1	
	<hr/>	
TOTAL		87
		<hr/>

Commerce

Edmonton	43	
Calgary	24	
Lethbridge	1	
Red Deer	1	
Vegreville	1	
Others—North of Twp. 38	14	
Others—South of Twp. 38	17	
	<hr/>	101
Prince Edward Island	1	
Saskatchewan	5	
Yukon and North West Territories	1	
	<hr/>	
TOTAL		108
		<hr/>

Dentistry

Edmonton	24	
Calgary	6	
Lethbridge	2	
Red Deer	1	
Vegreville	3	
Cardston	1	
Others—on or North of Twp. 38	12	
Others—South of Twp. 38	7	
	<hr/>	56
Manitoba	5	
Saskatchewan	31	
British Columbia	23	
	<hr/>	115

All other British colonies, dependencies and members of the Commonwealth (including India, Pakistan, Cey- lon, Rhodesia, Kenya, Guiana, etc.	1
China and Japan	1
Others	1
	<hr/>
TOTAL	118
	<hr/>

Education

Edmonton	179	
Calgary	26	
Lethbridge	13	
Medicine Hat	7	
Red Deer	8	
Vegreville	1	
Wetaskiwin	4	
Camrose	12	
Cardston	5	
Grande Prairie	7	
Others—on or <i>North</i> of Twp. 38	341	
Others— <i>South</i> of Township 38	105	
	<hr/>	707
Nova Scotia	1	
New Brunswick	1	
Manitoba	1	
Saskatchewan	8	
British Columbia	8	
Yukon and N.W.T.	1	
	<hr/>	728
United States of America		4
Germany, Austria (including Austria-Hungary)		1
Not specified		2
		<hr/>
TOTAL		735
		<hr/>

Engineering

Not stated	1	
Edmonton	238	
Calgary	100	
Lethbridge	25	
Medicine Hat	7	
Red Deer	10	
Vegreville	4	
Wetaskiwin	2	
Camrose	5	
Cardston	1	
Grande Prairie	7	
Others—on or <i>North</i> of Twp. 38	170	
Others— <i>South</i> of Twp. 38	106	
	<hr/>	676
Quebec		1
Ontario		5

Manitoba	8	
Saskatchewan	14	
British Columbia	11	
	<hr/>	715
Br. Dominions (S. Africa, New Zealand, Australia)		1
All other Br. Colonies, dependencies and members of the Commonwealth (including India, Pakistan, Ceylon, Rhodesia, Kenya, Guiana, etc.)		1
United States of America		1
Scandinavian States (Sweden, Norway, Denmark, Iceland, Finland)		1
Holland		1
Others		1
Not specified		5
	<hr/>	
TOTAL		726
	<hr/>	

Household Economics

Edmonton	30	
Calgary	9	
Lethbridge	3	
Vegreville	1	
Grande Prairie	1	
Others—on or North of Twp. 38	24	
Others—South of Twp. 38	12	
	<hr/>	80
Saskatchewan		1
	<hr/>	
TOTAL		81
	<hr/>	

Law

Edmonton	49	
Calgary	23	
Lethbridge	2	
Vegreville	1	
Not stated	1	
Others—on or North of Twp. 38	10	
Others—South of Twp. 38	8	
	<hr/>	94
Ontario		2
Manitoba		1
Saskatchewan		3
	<hr/>	
TOTAL		100
	<hr/>	

Physiotherapy

Edmonton	11	
Calgary	1	
Others—on or North of Twp. 38	3	
Others—South of Twp. 38	1	
	<hr/>	16

Saskatchewan	1
British Columbia	1
TOTAL	18

Medicine

Edmonton	108
Calgary	19
Lethbridge	6
Medicine Hat	3
Red Deer	2
Vegreville	2
Camrose	2
Grande Prairie	1
Others—on or <i>North</i> of Twp. 38	39
Others— <i>South</i> of Twp. 38	26
	<hr/> 208
Saskatchewan	16
British Columbia	3
Yukon and N.W.T.	1
TOTAL	228

Nursing

Alberta—not stated	2
Edmonton	99
Calgary	28
Lethbridge	10
Medicine Hat	2
Red Deer	10
Vegreville	6
Wetaskiwin	2
Camrose	9
Grande Prairie	2
Others—on or <i>North</i> of Twp. 38	110
Others— <i>South</i> of Twp. 38	53
	<hr/> 333
Manitoba	4
Saskatchewan	35
British Columbia	8
Germany, Austria (including Austria-Hungary)	1
TOTAL	381

Pharmacy

Edmonton	44
Calgary	8
Lethbridge	3
Medicine Hat	1
Red Deer	1
Vegreville	1
Wetaskiwin	2

Camrose	1	
Others—on or <i>North</i> of Twp. 38	39	
Others— <i>South</i> of Twp. 38	18	
	<hr/>	118
Ontario		1
Saskatchewan		3
	<hr/>	
TOTAL		122
	<hr/>	

Graduate Studies

Edmonton	91	
Calgary	22	
Lethbridge	4	
Wetaskiwin	2	
Others—on or <i>North</i> of Twp. 38	27	
Others— <i>South</i> of Twp. 38	9	
	<hr/>	155
New Brunswick		1
Quebec		1
Ontario		1
Manitoba		4
Saskatchewan		7
British Columbia		5
	<hr/>	174
British Isles (including Eire)		2
All other Br. colonies, dependencies and members of the Commonwealth (including India, Pakistan, Ceylon, Rhodesia, Kenya, Guiana, etc.		2
United States of America		1
Others		3
	<hr/>	
TOTAL		182
	<hr/>	

Bachelor of Divinity

Edmonton	9	
Red Deer	1	
Others— <i>South</i> of Twp. 38	2	
	<hr/>	12
Ontario		1
Saskatchewan		1
	<hr/>	
TOTAL		14
	<hr/>	

Auditors

Edmonton	3	
Others— <i>South</i> of Twp. 38	1	
	<hr/>	
TOTAL		4
	<hr/>	

Specials

Edmonton	6	
Calgary	1	
Lethbridge	1	
Others— <i>South</i> of Twp. 38	1	
	<hr/>	9
Nova Scotia		1
		<hr/>
TOTAL		10
		<hr/>

Partials

Edmonton	1
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ATTENDING CALGARY

Arts and Science

Edmonton	1	
Calgary	30	
Wetaskiwin	1	
Others—on or <i>North</i> of Twp. 38	1	
Others— <i>South</i> of Twp. 38	7	
	<hr/>	40
Saskatchewan		1
		<hr/>
TOTAL		41
		<hr/>

Commerce

Calgary	8
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Education

Edmonton	5	
Calgary	113	
Lethbridge	9	
Medicine Hat	3	
Vegreville	1	
Cardston	1	
Others—on or <i>North</i> of Twp. 38	12	
Others— <i>South</i> of Twp. 38	135	
	<hr/>	279
Saskatchewan		4
British Columbia		2
Not specified		3
		<hr/>
TOTAL		288
		<hr/>

Nursing

Calgary	1	
Cardston	1	
Others— <i>South</i> of Twp. 38	2	
	<hr/>	
TOTAL		4
		<hr/>

ATTENDING EDMONTON EVENING DIVISION

Arts and Science

Edmonton	27	
Calgary	1	
Wetaskiwin	1	
	<hr/>	29
Saskatchewan		1
British Isles (incl. Eire)		1
	<hr/>	
TOTAL		31
	<hr/>	

Commerce

Edmonton		3
	<hr/>	

Education

Edmonton	72	
Calgary	3	
Red Deer	2	
Wetaskiwin	2	
Camrose	1	
Others—on or North of Twp. 38	17	
Others—South of Twp. 38	8	
	<hr/>	105
Saskatchewan	2	
British Columbia	2	
Yukon and N.W.T.	1	
	<hr/>	110

Graduate Studies

Edmonton	25	
Saskatchewan	1	
	<hr/>	
TOTAL		26
	<hr/>	

Auditors

Edmonton	16	
Calgary	1	
	<hr/>	17
British Columbia		1
	<hr/>	
TOTAL		18
	<hr/>	

Special

Edmonton	2	
Saskatchewan	1	
	<hr/>	
TOTAL		3
	<hr/>	

ATTENDING CALGARY EVENING DIVISION

Arts and Science

Calgary	2	
Others— <i>South</i> of Twp. 38	1	
TOTAL		3

Commerce

Calgary	2	
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Education

Calgary	21	
Camrose	1	
Others— <i>South</i> of Twp. 38	1	
TOTAL		23

Graduate Studies

Calgary	2	
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Auditors

Calgary	19	
On or <i>North</i> of Twp. 38	1	
TOTAL		20
Ontario		2
Saskatchewan		2
British Columbia		2
TOTAL		26

Special

Calgary	15	
British Isles (including Eire)	1	
TOTAL		16

ATTENDING LETHBRIDGE EVENING DIVISION

Arts and Science

Lethbridge	2	
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Education

Lethbridge	19	
Cardston	1	
Others—On or <i>North</i> of Twp. 38	1	
Others— <i>South</i> of Twp. 38	14	
TOTAL		35
British Columbia		1
TOTAL		36

<i>Nursing</i>	
South of Twp. 38	1
	<hr/>
<i>Auditors</i>	
Lethbridge	1
	<hr/>
<i>Special</i>	
Lethbridge	2
Nova Scotia	1
	<hr/>
	3
	<hr/>

ATTENDING MEDICINE HAT EVENING DIVISION

<i>Arts and Science</i>	
South of Twp. 38	1
	<hr/>
<i>Education</i>	
Medicine Hat	15
Others—South of Twp. 38	3
	<hr/>
	18
Saskatchewan	2
	<hr/>
TOTAL	20
	<hr/>
<i>Auditors</i>	
Medicine Hat	4
Others—South of Twp. 38	1
	<hr/>
TOTAL	5
	<hr/>

Table XVII—Distribution of Students According to Pattern, Honors or Branch

	1st Year		2nd Year		3 Year		4th Year		Not Stated		Total	
	53-54	54-55	53-54	54-55	53-54	54-55	53-54	54-55	53-54	54-55	53-54	54-55
Arts and Science												
Pattern—B.A.												
English	17	30	11	18	13	13	.....	.....	.....	.....	41	61
Music	2	6	2	3	4	2	.....	.....	.....	.....	8	11
Foreign Lang. or Lit.	5	9	.....	3	.....	.....	.....	.....	.....	.....	7	13
History	16	12	13	15	9	15	.....	.....	.....	.....	38	42
Phil. or Psych.	42	26	15	41	23	17	.....	.....	.....	.....	80	85
Political Economy	13	7	17	16	15	13	.....	.....	.....	.....	45	36
Art	2	1	1	.....	.....	1	.....	.....	.....	.....	3	2
Political Science	3	2	.....	6	2	1	.....	.....	.....	.....	5	9
Pattern—B.Sc.												
Chemistry	41	42	22	28	13	12	.....	.....	.....	.....	76	83
Mathematics	5	5	5	4	3	3	.....	.....	.....	.....	13	12
Physics	9	4	3	2	4	2	.....	.....	.....	.....	16	8
Geology	31	17	36	19	27	35	.....	.....	.....	.....	94	72
Entomology	1	.....	1	1	2	.....	.....	.....	.....	.....	4	1
Zoology	24	44	37	38	17	11	.....	.....	.....	.....	78	94
Special B.Sc. course	20	15	16	12	7	15	.....	.....	.....	.....	43	42
Experimental Psychol.	8	7	1	5	2	2	.....	.....	.....	.....	11	14
No pattern	1	.....	2	4	.....	.....	.....	.....	.....	.....	3	4
Engineering												
Civil	31	50	58	73	40	54	37	36	.....	.....	167	213
Chemical	39	38	48	44	12	37	22	11	.....	.....	122	130
Electrical	29	39	31	37	16	28	18	17	.....	.....	94	121
Mining	4	5	16	11	6	10	3	5	.....	.....	27	31
Petroleum	14	11	16	11	16	22	12	17	.....	.....	58	61
Irrigation .....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
Engineering Physics .....	.....	2	.....	.....	2	3	.....	2	.....	.....	2	7
Engineering Geology	2	2	.....	.....	2	1	1	.....	.....	.....	2	3
Not specified	126	156	.....	.....	.....	.....	.....	.....	.....	.....	126	156
Honors												
Biochemistry	5	1	2	.....	1	2	.....	.....	.....	.....	8	4
Chemistry	9	10	7	9	4	5	8	1	.....	.....	28	28
Classics	1	1	.....	1	1	.....	.....	.....	.....	.....	1	1
Conservation Biology	1	1	.....	6	.....	1	.....	.....	.....	.....	1	3
English	5	.....	2	6	2	2	1	5	.....	.....	14	13
Geology .....	.....	1	1	2	2	3	2	8	.....	.....	5	2
History	1	3	1	.....	1	6	2	1	.....	.....	3	2
Mathematics	2	.....	4	2	2	1	.....	.....	.....	.....	10	13
Modern Languages	2	.....	2	1	3	2	1	3	.....	.....	8	6
Psychology	1	.....	3	3	2	2	.....	.....	.....	.....	6	5
Physics	2	5	4	4	2	3	3	2	.....	.....	11	14
Business Administration .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Political Economy .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1

**Table XVIII—Student Veterans According to Faculty or School
and Year of Course**

	1st Yr.	2nd Yr.	3rd Yr.	4th Yr.	5th Yr.	Totals
Arts and Science						
B.A. ....	...	...	2	1	...	3
B.Sc.	2	2	5	...	...	9
B.A., LL.B. ....	...	1	...	...	...	1
B.A. after B.Ed. ....	...	...	...	...	...	...
Diploma in Art ....	...	...	...	...	...	...
Partials ....	...	...	...	...	...	13
Agriculture—B.Sc. ....	...	2	...	1	...	3
Commerce	1	1	2	...	...	4
Partials ....	...	...	...	...	...	1
Dentistry	3	3	1	2	...	9
Education						
B.Ed.—4 year course ....	...	1	1	3	...	3
B.Ed. in Ind. Arts	1	...	...	...	...	1
B.Ed. after B.A., etc. ....	...	...	...	2	...	2
Junior E.	1	...	...	...	...	1
Partials ....	...	...	...	...	...	29
Engineering						
Civil ....	...	...	2	2	...	4
Electrical	1	1	1	...	...	3
Mining ....	...	1	...	...	...	1
Petroleum ....	...	...	...	1	...	1
Partials ....	...	...	...	...	...	1
Law	4	2	5	...	...	11
Medicine	1	1	2	...	...	4
Pharmacy ....	...	1	1	...	...	2
Partials ....	...	...	...	...	...	1
Graduate Studies						
M.A. ....	...	...	...	...	...	5
M.Sc. (Arts) ....	...	...	...	...	...	6
M.Sc. (Agric.) ....	...	...	...	...	...	1
M.Sc. (Engineering) ....	...	...	...	...	...	3
M.Ed. ....	...	...	...	...	...	18
Special Graduates ....	...	...	...	...	...	11
M.Sc. (Medicine) ....	...	...	...	...	...	2
Ph.D. ....	...	...	...	...	...	3
B.D. ....	...	...	...	...	...	1
Auditors ....	...	...	...	...	...	11
Special ....	...	...	...	...	...	10
Partials ....	...	...	...	...	...	1
	14	16	22	12	...	179

Table XIX—Degrees and Diplomas Awarded

DEGREES OFFERED				DIPLOMAS OFFERED			
	Diplomas Awarded				Diplomas Awarded		
	Fall 1954	Spring 1955	Total		Fall 1954	Spring 1955	Total
ARTS AND SCIENCE:							
B.A.	20	83		Diploma in Art .....	....	....
B.Sc.	10	78		Intermediate			
				Diploma in Art ....	....	2	
AGRICULTURE:							
B.Sc.	2	17					
COMMERCE:							
B.Com.	3	32					
DENTISTRY:							
D.D.S. ....	....	27					
EDUCATION:							
B.Ed.	110	54		Senior	163	117	
B.Ed. in							
Agriculture	1	....		Junior Elementary ..	164	67	
B.Ed. in							
Industrial Arts ..	4	4		Junior High School	104	78	
ENGINEERING:							
B.Sc. in Chemical							
Engineering	2	8					
B.Sc. in Civil							
Engineering	1	35					
B.Sc. in Electrical							
Engineering .....	....	16					
B.Sc. in Engineer-							
ing Physics .....	....	2					
B.Sc. in Mining							
Engineering .....	....	5					
B.Sc. in Petroleum							
Engineering	4	12					
HOUSEHOLD ECONOMICS:							
B.S. in Household							
Economics	2	23					
B.H.Ec. ....	....	1					
LAW:							
LL.B. ....	....	23					
MEDICINE:							
M.D.	3	54					
B.Sc.	1	....				
NURSING:							
B.Sc.	2	19		Nursing	61	18	
				Teaching and			
				Supervision	1	6	
				Public Health			
				Nursing .....	....	6	
PHARMACY:							
B.Sc.	4	37					
PHYSICAL EDUCATION:							
B.Ed.	4	5					
PHYSIOTHERAPY ..							
					
GRADUATE STUDIES:							
M.A.	4	5					
M.Sc.	9	16					
M.Ed.	9	4					
Ph.D.	1	4					
B.D. COMMITTEE:							
B.D. ....	....	5					
TOTALS	196	569	765	TOTALS	493	294	787

Report of Dean A. G. McCalla of the Faculty of Agriculture

The year 1954 will stand out in the records of the Faculty of Agriculture. On August 16 the move into the Agriculture Building was started and, on October 29, the Building was officially opened. The greatly improved facilities have increased the efficiency and scope of the work of the faculty and the comfort and pleasure of both staff and students. When the greenhouses are completed, the total facilities for the departments concerned will not be surpassed in Canada. The official opening of the Building and the awarding of honorary degrees to prominent agriculturists gave a distinctly agricultural atmosphere to Fall Convocation. During the open house held at the same time, over 500 visitors were shown through the Building. Many more have visited it since that time, particularly during Varsity Guest Weekend.

In February, 1955, Dr. Roy T. Berg returned to the University after completing studies for his Ph.D. in Animal Breeding at the University of Minnesota. He has resumed his duties as Assistant Professor of Animal Husbandry. Dr. George E. Ball joined the staff as Assistant Professor of Entomology and Dr. E. H. Strickland retired after serving as Professor of Entomology since 1922. Dr. J. D. Newton attended the Fifth International Congress of Soil Science held in the Belgian Congo. He was elected Vice-President of Commission III (Soil Biology) at the meeting.

It is noteworthy that of the 21 Postdoctorate Overseas Fellowships in all fields awarded by the National Research Council of Canada this year, two of the winners have worked in the Faculty of Agriculture. One of these, Dr. Clayton Person, received the first Ph.D. degree awarded by this University. His award is a renewal. The second winner, Clarence R. Fuerst, received the B.Sc. in Agriculture in 1949 and the M.Sc. in Plant Biochemistry in 1951. He receives the Ph.D. from the University of California this year and will do postdoctoral work in Paris.

Registration of undergraduates has been disappointing and employment opportunities again exceed the number of students both at the undergraduate and graduate level. The failure to secure an adequate number of graduate students has definitely retarded the research programs in some departments.

1. Academic

There were 87 full-time undergraduate students registered in the faculty. Graduate students included 11 candidates for the M.Sc., 8 for the Ph.D., and 3 special graduates. Three of the Ph.D. candidates, all from the Department of Plant Science, have completed their studies and will receive their degrees this spring.

The number (23) and quality of the students in the first year was below normal. It is certain that the relatively poor year in most farming areas had some effect on registration.

A short course for managers and operators of milk pasteurizing plants given in the Department of Dairying was attended by 14 students. A short course for 30 land assessors was given by the Department of Soil Science and the staff of the Alberta Soil Survey.

2. Research

The greatest improvement effected by the Agriculture Building is in relation to the research program of the faculty. The extension of facilities for the Department of Dairying was completed during the past year, and

a new swine barn was built at the farm. The increased effectiveness made possible by these developments is already evident.

The Department of Agricultural Engineering has continued work with sprayers used for chemical weed control.

The Department of Animal Science has continued work on many of the projects mentioned in the past few reports. Studies on swine and poultry still predominate, but projects involving dairy cattle, beef cattle, and sheep have also been carried on. New projects have been started with sheep, swine, and beef cattle. With the assistance of the National Research Council of Canada the department is co-operating with other institutions on a research project designed to test the applicability of the "Nutrient Allowance for Swine, National Research Council, U.S.A." In the poultry field, a similar co-operative project is being carried out. Several new projects with poultry have been initiated with emphasis on nutritional problems.

The Department of Dairying has completed studies on the seasonal and regional variations in fatty acids of Alberta butterfats, and results are in preparation for publication. The canned butter project is nearing completion. Such butter has been stored fairly successfully without refrigeration for two years. The crystallography of the butterfat is in the initial investigational stage and is being related to butter texture. Improvements have been made in the continuous buttermaking machine.

The research program of the Department of Entomology has been influenced by the retirement of Dr. Strickland and the appointment of Dr. Ball. Work has continued on a few projects. New projects include local mosquito distribution studies and ground beetle population studies. Co-operation with the Defence Research Board of Canada has continued.

The research program of the Department of Plant Science continues to be the largest in the Faculty and perhaps in the University. This department received many grants for research from sources outside the University. Several of these now take the form of guaranteed support over a period of years which makes better planning possible. Projects supported by such grants are: (a) the alfalfa improvement program, (b) the study of the mutagenic action of various chemicals used in agriculture, and (c) the work on the introduction of genes for rust resistance into standard varieties of wheat from resistant varieties and from other species. Total grants for research made to this department by sources outside the University exceeded \$60,000, including a special grant of \$16,000 from the National Research Council for an ultracentrifuge to be used in plant biochemical research.

Most of the projects mentioned briefly in earlier reports have been continued and several new projects have been started. Reference can be made to only a few of these.

A study of a number of primitive wheat and barley species from Syria is being undertaken as a new project. This will involve hybridization, cytological observations, and tests of agronomic characters and disease reactions. It is possible that valuable new germ plasm may be discovered.

The past year produced many lots of exceedingly bitter potatoes. The study of such bitterness has been continued and the results presented in a Ph.D. thesis. The main reasons for the bitterness and the means by which it can be prevented have been discovered.

The rust epidemic of 1954 again focused attention on this destructive disease. Renewed interest in possible chemical controls has led to a study

of the effect of antibiotics in such control. Excellent results were obtained under research conditions, and these may have practical importance.

The Department of Soil Science (formerly Department of Soils) has continued work in many of the fields where only long-time records will give reliable results. Most of the fertilizer tests are in this category as are the soil erosion experiments and the irrigation studies at Youngstown. Anhydrous ammonia has been tested as a fertilizer and this work will be expanded in 1955.

The definite effects of fertilizers in improving the nutritive value of forage crops grown in the grey soil zone have been confirmed by rabbit feeding trials.

Studies on the inoculation of legumes has led to the development of a pellet form of inoculum. Promising results were obtained when these pellets were drilled into established fields of legumes that were poorly inoculated.

The research programs of most of the departments have been greatly aided by grants and gifts from many organizations. Commercial and industrial firms have contributed materials such as feeds and fertilizers and a number have made substantial cash grants. The fundamental research projects in particular have depended largely on the generous contributions made by the National Research Council of Canada and the Canada Department of Agriculture. The assistance from all sources is gratefully acknowledged.

3. *Extension*

As usual, faculty members took part in many short courses, meetings, and field days, and at several seed fairs throughout the province. The number of radio addresses decreased slightly, but personal interviews and extension correspondence both increased.

The 33rd Annual Feeders' Day in the Department of Animal Science was attended by approximately 600 people despite heavy rain. The 12th Annual Visitors' Day in the Department of Plant Science had a fair attendance. The 2nd Annual Field Day was held at the Youngstown irrigation plots and was very well attended. No field day was held at Breton as the Department of Soil Science found it impossible to seed the plots until very late in the season.

In concluding this report, I wish to record the appreciation of the staff members who have had the pleasure of working in the new accommodation and with the improved facilities made available during the past year.

Report of Dean Walter H. Johns, of the Faculty of Arts and Science

I have the honour to present a report dealing with the Faculty of Arts and Science for the session 1954-55.

1. *Registration 1954-55 (exclusive of the Schools of Commerce and Household Economics):**

The registration in the Faculty of Arts and Science was 784 as compared with 748 in the session 1953-54. In this total are included (a) at the Edmonton Branch—B.A.: 271; B.Sc.: 386; B.A., LL.B.: 58; B.A., B.Com.: 2; B.A., B.Sc. (Eng.): 1; Pre-Dent.: 26; Diploma in Art: 3; (b) at the Calgary

* For purposes of this report, the figures used are those of the Registrar's office.

Branch: B.A.: 15; B.Sc.: 16; B.A.,LL.B.: 3; Pre-Dent.: 3. Partials and Specials in the regular and Evening Division courses in Edmonton, Calgary, Lethbridge, and Medicine Hat accounted for another 68 students making a total of 852 full-time and partial students.

2. *Recommendations for degrees*

The number of students recommended for degrees is as follows:

	October, 1954	May, 1955	Total
For the B.A. degree	20	83	103
For the B.Sc. degree	10	78	88

3. *Progress during the session*

(a) *Patterns and Honors Program*—During the session the Council approved a new B.A. pattern in Geography, a new B.Sc. program in Geography and a new Honors Program in Political Science. Changes in other programs were due largely to the continued adjustment in the senior years resulting from the reduction in the mathematics of matriculation.

(b) *New Courses*—The following new courses were added to the offerings of the various departments:

- Biochemistry 105—Advanced Plant Biochemistry
- Business Administration 40
- Geography 51—Economic Geography
- Geography 52—Cartography
- Geography 70—Anglo-American
- Geography 71—Northern Lands
- Geology 106—Geochemistry
- Geology 107—Advanced Petrology
- History 64 (Summer Session only)—Soviet Russia from 1917 to the Present
- History 66—The Politics of Europe, 1914-1954
- Philosophy 113—Philosophy of Mind
- Psychology 115—Seminar in Social Psychology
- Psychology 116—Advanced Clinical Psychometrics
- Psychology 117—Research in Personality and Social Psychology
- Physics 59—Introduction to Physics of the Earth
- Political Science 54—Government of Canada
- Political Science 58—Comparative Government
- Political Science 111—Advanced Political Thought
- Political Science 112—Reading and Seminar Course
- Political Science 134—International Politics
- Sociology 1—Introductory Sociology
- Sociology 53—Social Organization
- Sociology 54—Social Problems.

The courses in Sociology were approved by General Faculty Council to be introduced when a new staff member in this field is appointed. All the others were approved without reserve.

(c) *Leave of Absence and Sabbatical Leave*—Sabbatical Leave was granted to Dr. W. G. Hardy for study in Italy and Greece, to Dr. R. E. Folinsbee for research in Geology at the University of California, and to Associate Professor A. M. Mardiros for study of the relationship between society and art in Italy. Miss Lorene Louise Kennedy was granted leave of absence to carry on graduate work at the State University of Iowa, and Dr.

Victor Ernest Graham to serve as visiting Professor of French at the University of Michigan.

(d) *Retirements, Resignations and New Appointments*—Dr. J. W. Campbell retired as Professor of Mathematics and Head of the Department at the end of August, 1954 and was replaced as Head of the Department by Professor E. S. Keeping. Dr. John MacDonald returned to the University as Special Lecturer in Philosophy during the absence of Mr. Mardiros while Miss Anne Louise Gorham and Mr. John George Niddrie replaced Miss Kennedy and Dr. Hardy in Botany and Classics respectively.

New appointments included Dr. William John Wallace as Assistant Professor of Inorganic Chemistry, Dr. Samuel James Nelson as Lecturer in Geology, Dr. John Derrick Godfrey as Lecturer in Geology, Mr. Eugen Joseph Weber as Lecturer in History, Dr. Charles Herald Moore as Lecturer in French, Dr. Lawrence Clinton Walker as Lecturer in Social Psychology, and Dr. George David Garland as Assistant Professor of Geophysics. Dr. Margaret Mae Sullivan, a graduate of the University of Alberta was appointed Sessional Lecturer in French in the Calgary Branch, replacing Dr. Graham.

At the beginning of the 1954-55 session Mrs. Eunice Hanna (nee Robertson) moved from the Edmonton to the Calgary Branch in the Department of English, while Dr. Wilfred Watson came from Calgary to Edmonton in exchange.

(e) *Evening Division*—One of the most interesting features of the year was the increased interest in registering in Evening Division courses for credit. Classes were begun in Lethbridge and Medicine Hat in addition to the regular programs which were carried on in Edmonton and Calgary.

4. *Departmental Reports*

Botany

Miss L. L. Kennedy, Assistant Professor of Botany, spent the year carrying on advanced studies in Mycology at the State University of Iowa, replaced by Miss Anne Gorham. Mr. A. R. Prince, Associate Professor of Biology in the Calgary Branch, has undertaken a study of Alberta lichens. Dr. R. G. Cormack is continuing critical studies in plant anatomy from the ecological point of view. Dr. Whyte is carrying on seed exchanges with botanical institutions in other countries and testing the introduced plants for hardiness under Alberta conditions. Dr. E. H. Moss has been engaged in preparing a comprehensive article on the vegetation of Alberta for the Botanical Review.

Chemistry

Registration in Chemistry courses continues to increase due particularly to the growing number of students in the Faculty of Engineering, placing a burden on accommodations and on the supply of student demonstrators which is quite inadequate to the demand. This is due to the relatively small numbers of students registered in Honors and Graduate programs. One member was added to the full-time staff on the appointment of Dr. William John Wallace as Assistant Professor of Inorganic Chemistry.

During the past year Dr. J. J. Brown of the University of Glasgow has been working in the Department under Dr. R. K. Brown as the holder of a Post-doctorate fellowship from the National Research Council. Dr. Thelma Habgood has begun research under Dr. R. B. Sandin on a project financed

by the National Cancer Society. About 20 graduate and undergraduate students worked during the Summer of 1954 on a variety of projects in the Department. Dr. Brown spent the summer carrying on research at the Field Experimental Station of the Defence Research Board at Suffield and Dr. W. E. Harris worked on isotope separation at the Chalk River plant of Atomic Energy of Canada. Members of the Department attended a number of National conferences in their various fields throughout the year. All members of the Department were engaged in research as follows:

W. F. Allen, on Methods for determining small amounts of cobalt; *R. K. Brown*, on Carcinogenic and anticarcinogenic compounds, Synthesis of heterocyclic compounds, and Reactivity of cellulose; *S. G. Davis*, on The electropotential of dental alloys, and The removal of *n* decyl mercaptan from hydrocarbon solvents by charcoal; *W. E. Harris*, on Development of a series of 30 low resistance, reference half cells of potentials varying from -0.5 volts to -1.0 volts; *J. L. Morrison*, on The heats of wetting by water of wool keratin, The adsorption of propyl alcohols from aqueous solutions by mercerized and unmercerized cellulose, The adsorption of various organic acids by coconut charcoals, and The preparation of charcoals of different degrees of activations; *R. B. Sandin*, on Research on compounds which might be useful in the chemotherapy of cancer, and Research on compounds which might elucidate the mechanism of tumor production; *O. J. Walker*, on Fluoride analysis; and *W. J. Wallace*, on Preparation of anhydrous metal halides by reacting metals with halogens at low temperature in donor solvents, Factors affecting the strength of metal halides as Lewis acids, and Determination of hydrolysis constants of “-3” metal ions.

In addition to his Departmental duties Dr. Allen served as Assistant to the Director of the Calgary Branch during the absence of Dr. Graham.

This year brought the retirement of Mr. Jim Thompson of the Department's non-academic staff after thirty-four years of service as a laboratory technician.

Twenty-three graduates in Chemistry carried on graduate study last year in nine different Universities in the U.S. and three in Canada.

Classics

Dr. W. G. Hardy, Professor of Classics, was granted sabbatical leave for study in Italy and Greece during the session, but due to illness suffered following the Summer Session, and later due to his responsibilities as editor of the Alberta Jubilee Anthology he was unable to leave for Europe until early in 1955. Mr. J. G. Niddrie, former Principal of Westglen High School, served as Sessional Instructor in Latin during Dr. Hardy's absence.

In the Calgary Branch Miss Mabel Giles completed her second year as Sessional Instructor in Latin but will be unable to continue after the present session.

English

The Department of English was strengthened by the return of Associate Professor Kreisel from two years' study at the University of London where he was awarded the degree of Doctor of Philosophy. Dr. Wilfred Watson was transferred to the Edmonton Branch of the University when Mrs. Eunice Hanna was moved to the Calgary Branch at her own request.

Members of the Department engaged in a wide variety of activities outside the University in addition to their academic work. Professors Kreisel

and Watson conducted a "Writers' Workshop" in ten evening classes under the auspices of the Extension Department, Dr. Godfrey gave a series of Extension lectures on the Modern English Novel, conducted the series of talks entitled "Great Literature" over CKUA, gave a book review over the CBC and, with Dr. Watson, selected the poems for inclusion in the Alberta Poetry Yearbook, 1954.

Professor Salter gave a number of public addresses throughout the year, including a paper presented to the Humanities Association of Canada at their annual meeting in Toronto, and is serving as one of the judges in a short story, poetry, and drama contest sponsored by the Saskatchewan Arts Board in connection with the Province's Fiftieth Anniversary. Dr. Kreisel addressed the Philosophical Society on James Joyce and served as adjudicator of the Provincial One-act Play Festival. Professor Ryan judged the poems for the poetry section of the Alberta Jubilee Anthology. Dr. Scargill is serving as Secretary and Editor of the Canadian Linguistic Association and a member of the editorial board of the *Brunswick Dictionary of Canadian English*.

Once again recent graduates in Honours English have brought distinction to themselves, the Department, and the University by winning awards tenable in Canada, the United States and Great Britain.

Fine Arts

No Department in the Faculty of Arts and Science carries on a more varied program than that of Fine Arts with its Divisions of Art, Drama, and Music and its diverse program of Extramural and Extension activities.

The Art Division this past year completed the second year of the Diploma Course in Art and two students qualified for the Intermediate Diploma. The establishment of a definite sequence of courses in this field had a beneficial affect on the work of the 126 Extension students in Edmonton. In addition to arranging for the display of ten travelling exhibitions, the Division sponsored three one-man shows, one exhibit of Designs at the Regional Drama Festival and a student exhibition from the Slade School. Seventeen radio broadcasts were given over CKUA on the theme "Art in Everyday Life" and Professor Glyde and Mr. Taylor gave a number of public addresses in Alberta and British Columbia. Professor Glyde was selected to illustrate the Alberta Golden Jubilee Anthology and to serve as one of three jurors selected by the National Gallery of Canada to select paintings from the Prairie Provinces to be included in the 1955 Canadian Biennial Exhibition.

The Music Division in addition to carrying out its regular academic program directed a number of extracurricular activities which have done much to enrich the musical life of the province. Professor R. S. Eaton led the Mixed Chorus in the regular annual concerts in Edmonton and Calgary as well as ten CBC broadcasts, a tour of towns in the Peace River Area and other concerts in Edmonton. He also led the University Singers, a group largely made up of Faculty and alumni, in a series of rehearsals and a final concert. Mr. A. B. Crighton again conducted the University Symphony Orchestra in their annual concert and participated with the University Singers and the Music Division Chorus in a Christmas Concert. Mr. Edgar Williams, Instructor in Strings, conducted three Chamber Music recitals throughout the year in Convocation Hall. Finally, the Music Division supervised the work of the Western Board of Music in Alberta.

The Drama Division carried on instruction in four courses in the regular academic session and supervised the work of the Studio Theatre. In the Summer Session of 1954 two courses in Drama were offered and six one-act plays performed by students under student directors. In the regular Winter Session four major productions were presented by the Studio Theatre, of which one was by the students' Drama Society, and one by students in the advanced acting and Extension course students. The Regional Drama Festival of the Dominion Drama Festival was held in Convocation Hall this year and staff and students in the Drama Division participated in the arrangements for the Festival.

The Department as a whole sponsored three concerts—by Boris Roubakine, pianist; Leyton Brown, violinist; and The New Art Wood-wind Quintet of New York; and a lecture by W. G. Constable, Curator of Paintings of the Boston Museum of Fine Arts.

The Extension activities of the Department were carried out with rapidly growing success by Harry Wohlfarth in Art, Miss Esther Nelson in Drama, and Mr. Gordon K. Greene in Music. Miss Nelson received the Canadian Drama Award as a recognition of her effective work in promoting community drama throughout the province.

Geology

The staff in the Department of Geology was augmented the past session by the appointment of Dr. Samuel James Nelson, formerly of the staff of the University of New Brunswick, and Mr. John Derrick Godfrey, a graduate of the University of Nottingham, who has recently been carrying on graduate study under Professor Harold Urey of the University of Chicago in Geochemistry. Dr. Folinsbee spent the year on sabbatical leave carrying on research in the University of California. Other members of the Faculty continue to carry on active programs of research both in the field and in the Laboratory and to serve as consultants to the companies carrying on exploration and development in the petroleum and natural resources of the province.

Enrollment continues high, though fewer students are entering the Geology programs at the present time than in recent years. Graduate work is increasing and more could be registered if more space for their research were available. Recent Alberta graduates in Geology have been carrying on advanced work at five Universities in the United States and one in Canada. The Department's collection of museum specimens continues to grow as the result of the work of staff members and of gifts from such sources as the Shell Oil Company, the Union Oil Company and the U.S. National Museum, Washington.

The Rutherford Memorial Volume of the American Association of Petroleum Geologists, a symposium on "Western Canada Sedimentary Basin" was issued this Spring in honor of the late Dr. R. L. Rutherford and will be given each year as the Rutherford Memorial Prize in Stratigraphy, awarded by the Alberta Society of Petroleum Geologists.

History

The complement of staff in the Department of History, which had fallen to three on the retirement of Professor Long, was raised to four again in the appointment of Mr. Eugen Joseph Weber. Members of the Department offered eleven courses during the regular academic session and Mr.

Davy of the Department of Political Economy offered History 65 in the Evening Division. Dr. Blackley, in addition to giving a number of lectures to the University Service Training units and other local groups, presented a paper in Los Angeles at the annual meeting of the Pacific Branch of the American Historical Association. Mr. Weber delivered a number of addresses locally and gave three broadcasts over CKUA.

Mathematics

The Department in the 1954-55 academic session comprised twelve full-time and two part-time instructors including one full-time member at the Calgary Branch.

In the Summer of 1954 Messrs. Wyman, Phibbs, Jacka and Helfenstein taught courses in the University Summer Session, Dr. Moser and Dr. Rooney participated in the Summer Research Institute of the Canadian Mathematical Congress at Queen's University, and Dr. Horton worked at the National Research Council on problems connected with the Quantum theory of the Solid State. Dr. Wyman delivered a paper at the American Mathematical Society meeting in Laramie, Wyoming, and Dr. Crosby a paper at the meeting of the American Mathematical Association (Pacific Northwest Section) at Portland, Oregon. Professor Keeping attended the International Mathematical Congress in Amsterdam in September, 1954.

A very active program of research is continuing in a wide variety of fields as the list of publications will show. The number of students taking courses in Mathematics continues to grow with the increasing registration in Engineering and Commerce as well as Arts and Science and Education. Fortunately there appears to be a tendency for more students to register in Honors and Graduate courses in Mathematics. These students and the staff have carried on the Mathematics Colloquium throughout the year under the direction of Dr. Moser with a resulting stimulus to research and the sharing of ideas in the field.

Modern Languages

The return of Mr. Faucher after a year's absence due to illness and the appointment of Dr. Charles Herald Moore served to strengthen the French Division of the Department the 1954-55 session. Dr. Victor Graham of the Calgary Branch was on leave as Visiting Professor at the University of Michigan and was replaced by Dr. Margaret Sullivan, a former graduate who completed her doctoral studies at the Sorbonne in 1954.

Registration showed a gratifying increase again this year, particularly in first year German and in senior French courses. Three students were registered for the M.A. of whom one, Mr. Victor Buyniak, won a fellowship at Columbia University for further study in Slavic Philology and Literature.

Dr. Moore, Mr. Pierre Gobin, the teaching fellow from France, and Dr. Starchuk took an active part in extra-curricular lectures to organizations outside the University and over CKUA. Dr. Greene served as Vice President of the Alliance Francaise, and Mr. Reinhold was active in the Friends of the Indians Society.

Four former students held appointments during the year as Assistant Teachers in France—an unusually high figure which reflects the confidence placed in the Department by the Office National des Universites francaises.

Philosophy and Psychology

During the 1954-55 Session Mr. A. M. Mardiros was on sabbatical leave studying in Italy in the field of Aesthetics, while Dr. John MacDonald, former head of the Department, returned as Special Lecturer in his place. The addition of Dr. Lawrence Clinton Walker to the staff has made it possible to extend the instruction in the important field of Social Psychology.

Professor Douglas E. Smith has been appointed to the Scientific Planning Committee of the new Alberta Division of the Canadian Mental Health Association. He has been re-elected Vice President of the John Howard Society of Alberta and has become Past President of the Council of Community Services in Edmonton.

During the winter Miss L. Wilson attended a conference on the use of the Strong Vocational Interest Blank at the University of Minnesota and Dr. Smith attended the Western Regional Workshop on Social Work Education.

The Department continues to receive requests for testing and counseling in increasing numbers. An attempt is made to meet the most urgent of these requests, especially when they can give clinical experience to senior students.

During May, 1955 Dr. D. Spearman conducted a workshop on the Rorschach testing technique for qualified candidates.

Physics

The outstanding event of the year was the appointment of Dr. G. D. Garland as Assistant Professor of Geophysics. Instruction in this specialty has started, with five students, and through the generosity of Northwest Seismic Surveys, Limited, in supplying some used equipment, it has been possible to set up a Geophysics laboratory.

The number of students taking Physics in preparation for Engineering and other professional courses continues to increase at a rate which is out of proportion to the general increase in University registration, and this year 754 students were enrolled in First and Second Year Physics courses, putting a considerable strain both on staff and on laboratory accommodation. The number of undergraduates specializing in Physics remains approximately constant, but this year the Department encountered a high in graduate students, with nine enrolled, of whom six were actively engaged on research projects.

In research, Professor D. B. Scott is continuing his work with the Provincial Cancer Clinic and with the Isotope laboratory of the University Hospital. He has a student studying in models the use of beta-rays for treatment of lesions in the eye, and another student searching for tracks left by nuclear reactions in photographic plates which were exposed to radiation from the betatron at the University of Saskatchewan. Dr. J. H. Harrold and a research student are developing an interferometer method for studying the surface development of metallic crystals. Dr. K. B. Newbound has a student making precision wave-length measurements in the spectra of mercury and of argon. Dr. E. H. Gowan is continuing his long-term project on the study of atmospheric ozone, and Dr. H. Schiff his theoretical calculations on the interaction of subatomic particles. Professor Grayson-Smith has one student working on the dielectric constants of hydrated crystals, and is also supervising the work of Mr. M. C. Martin in Calgary, who is reducing a long series of measurements made last summer on the elastic constants of metallic single crystals.

Political Economy

Dr. H. B. Mayo returned to the Department in 1954 on the conclusion of his year as visiting Professor of Political Science at McGill University. Dr. Wonders served in the Summer Session at the University of British Columbia as Lecturer in Geography.

Dr. Hanson and Mr. Gainer have completed a study of Investment and Economic Change in Alberta, 1946-1951. Mr. Mackenzie is proceeding with an analysis of the changing cost structure of Canadian agriculture since 1926 and Mr. MacDowell is working on a study of Alberta labor legislation and administrative practice.

Members of the Department participated in a number of extra-curricular projects of an educational nature. Dr. Wonders gave a large number of lectures in the field of Geography and Mr. Davy spoke on International Affairs to a wide variety of audiences. He took part in Citizens Forum broadcasts twice on the CBC and gave two book reviews on the program "Critically Speaking." Dr. Mayo served throughout the year as technical adviser to the Royal Commission on the Metropolitan Areas of Edmonton and Calgary. Dr. Hanson prepared a report on local Government for the Saskatchewan Royal Commission on Rural Life and Agriculture and gave assistance to the Edmonton Chamber of Commerce and the Citizens' Bureau of Municipal Research (Toronto) on projects sponsored by these organizations. Mr. Gainer prepared a report for an Alberta power company and was active in the work of the National Council of the Canadian Credit Institute.

Zoology

Two members of the staff of the Department visited the United Kingdom and Europe during the summer of 1954. Dr. J. R. Nursall, travelling on a Nuffield Foundation Grant, visited the Freshwater and Marine Biological Stations of Britain, and Dr. Wm. Rowan, with the aid of grants from the National Research Council and the Research Council of Alberta, visited game research organizations in Britain, Sweden, Finland, Germany, and Austria. In Vienna he was enrolled as a Knight Officer of the Order of St. Hubert, one of the oldest conservation organizations in the world. He was guest speaker at the Congress International de Photobiologie in Amsterdam, and held seminars and gave addresses elsewhere.

In the field of research, Dr. Nursall continued his studies in the musculature of fish, while Dr. J. E. Moore enlarged his field collections of amphibians, reptiles, and mammals, for the Department, and studied the mammalian fauna at the Gorge Creek Biological Station and carried on a taxonomic study of the pocket gophers of Alberta.

Dr. R. B. Miller has continued his fish surveys throughout the province and directed the research activities at the Biological Station at Gorge Creek. These include studies of survival of hatchery-reared trout under natural conditions and the homing behaviour of trout. Dr. Rowan continued his cycle research under the auspices of the Research Council of Alberta.

Both Dr. Miller and Dr. Rowan attended a number of meetings during the year. Dr. Miller presented papers at the Conference of Fishery Workers of the Great Plains in Banff in February and the North American Wildlife Conference in Montreal in March. Members of the Department have delivered a number of addresses on the radio and at public meetings on various aspects of conservation and have been active in planning a new Zoo in Edmonton. Dr. Rowan has, in addition to his work in the field of

Zoology, given instruction in anatomy to a University Art class. One of his own works is now widely circulated in Canada, with the reproductions numbering in the millions—the design of the whooping cranes on the Canadian five cent stamp. Dr. J. E. Moore also saw one of his hobbies develop into a University activity, when he was given the task of cataloguing the University's collection of coins.

Report of Dr. F. G. Winspear, Director of the School of Commerce

The enrolment of the School of Commerce for the 1954-55 session in comparison with the 1953-54 session is as follows:

<i>First Year</i>	42*	(48 in 1953-54)
<i>Second Year</i>	32	(29 in 1953-54)
<i>Third Year</i>	34	(32 in 1953-54)

* plus 7 in the Calgary Branch.

During the current year Professor B. A. Lindberg of the Harvard School of Business Administration has been appointed Director of the School of Commerce and Professor of Business Administration and is to assume his duties at the commencement of the 1955-56 session. In the meantime discussions and correspondence have been carried on with Professor Lindberg with a view to widening the scope of the School's activities in both the undergraduate courses and in extension work.

Boris A. Gardave was appointed Assistant Professor of Business Administration, and commenced his duties during the current session. This is the first step in the organization of a Department of Business Administration, and this development, together with the appointment of Professor Lindberg, will tend to increase the contribution of the University in the field of Business Administration.

The Department of Accounting has been active in improving and adapting its offerings to the Faculties of Law, Medicine, and Dentistry, with a view to meeting the special needs of students in these Faculties. In the Extension field, Evening Accounting courses for the Society of Registered Industrial Accountants have been offered in Calgary and Lethbridge as well as Edmonton.

Professor Campbell has served on the Educational Committee of the Registered Industrial Accountants and on the Dominion Board of Review of the Institute of Chartered Accountants of Alberta. He has also served on the Committee of Accounting and Auditing Research of the Canadian Institute of Chartered Accountants and has continued to supervise an analysis of the financial statements of Canadian companies. Professor Campbell has also prepared and supervised the installation of a uniform system of Accounting for Alberta hospitals, working with the Provincial Department of Public Health. Mr. Dennis Goodale, in addition to his regular duties, participated in the Evening Division lectures for the Registered Industrial Accountants and collaborated with Professor Campbell in the analysis of the financial statements of Canadian companies.

Report of Professor Mabel Patrick, Director of the School of Household Economics

I beg to submit the following report of the School of Household Economics for the year 1954-55.

Registration in the degree courses has increased 12.5% and there has also been an increase in the total number of students registered in courses

in the Department of Household Economics. To help meet a shortage of teachers of Household Economics, a special one-year course was offered for qualified teachers.

Registration in Household Economics courses at the 1954 Summer Session exceeded that of 1953 by 11%. Advance registration for the 1955 Summer Session indicates that the increase may be much higher this year.

Miss Hazel McIntyre has spent the year at Columbia University on sabbatical leave. Miss Evelyn Erdman has replaced her for the session. Miss Elizabeth Empey has been on leave of absence and is studying at Cornell University on an assistantship.

Two graduates have been studying at the State College of Washington on fellowships. Miss Hazel Brown received a Master's degree at the spring Convocation.

Additional laboratory and office space has been provided for the Department of Household Economics. Facilities are greatly improved as a result of this expansion and of reorganization and modernization.

This year fourteen members of the senior class have accepted hospital interne appointments and five plan to enter the Faculty of Education. The demand for graduates in the fields of Education, Institutional Management, Extension work and Home Service has increased and continues to exceed the supply. The lack of trained personnel is of deep concern to the profession as a whole. Members of the staff have participated in career days at several schools.

Staff members have attended conventions, participated in the program of the Extension Department for Farm Young People, answered requests for information, welcomed visitors to the department, given talks to outside organizations and given advice on home problems.

Report of Dean W. Scott Hamilton of the Faculty of Dentistry

The total student enrolment in the faculty for the session 1954-55 was 118, including 4 European graduates as special students. There are 29 in the graduating class, 2 of whom are special students.

Eleven applications were received from European graduates. Of these, four have completed the examinations required to assess their standing.

Members of the faculty have continued working with basic science departments in research projects.

In September of 1954 a refresher course was conducted by the faculty and about 150 practising dentists attended. The special guest speaker was Professor R. W. Phillips from the University of Indiana.

In the field of activities outside this university, members of the faculty have appeared on several programmes, including meetings of the American Association of Dental Schools, Pacific Coast Dental Conference, Pacific Coast Prosthetic Society, Council on Dental Education, British Columbia Dental Convention, Winnipeg Dental Society. In conjunction with the profession, members of the Faculty were active in broadcasts, television and lectures during Dental Health Week, April 25th to 30th.

The faculty was represented at the meeting of the American Association of Dental Schools by Drs. MacLean, Fraser, MacGregor, Stewart, and Hawkins.

Two members of the graduating class have been accepted for graduate

study in the United States and Eastern Canada and others are considering further training.

Report of Dean H. E. Smith of the Faculty of Education

Registrations have continued with a small but steady increase from 1,035 last year to 1,082 in 1954-55. The most marked increase both at Edmonton and Calgary was in the one-year Junior E program. While small decreases were noted in the senior B.Ed. years, registrations in the B.Ed. program following another degree and in the M.Ed. program were increased.

Because of heavier enrolment in junior courses, the responsibility mainly of the Education staff, two sessional instructors were appointed: Dr. G. S. Lord at Edmonton, and Mr. G. F. Baer at Calgary. In addition, the part time services of Mr. A. Earl, Coordinator of Teacher Training, were made available by the Department of Education for the supervision of student teaching. Mr. J. A. Forbes, on leave of absence for the session, was replaced by Mr. E. N. Yates.

Arrangements were again made for a student exchange with the Connecticut State Teachers' College at New Britain. Miss Shirley Aldrich, a second year student of great promise, went from Alberta and Miss Marion Gourlie, also a second year student, came to this campus. The exchange seems a splendid idea, and the visitors on each side have proven excellent ambassadors of good will.

Gratifying progress has been made in the research program launched last year. The first issue of the Alberta Journal of Educational Research appeared in March, 1955, and has been acclaimed a production of high quality. The editorial work was done by Dr. H. S. Baker. Four issues per year are contemplated. Dr. G. M. Dunlop has carried the main burden of organization of research activities, with the whole-hearted support however of all members of staff.

Last year, as in the two previous years, the C.E.A. Kellogg Project held on the campus its three-week course in Educational Administration. Some 70 superintendents of schools, school inspectors, department of education officials, and representatives of trustee and teacher organizations were in attendance. All ten Canadian provinces were represented in a rough proportion to population. Members of the Faculty cooperated extensively in all phases of the program. Discussions are proceeding concerning an alternative program in administration, possibly centred in the University of Alberta, to be effective when the last of the three-week courses concludes in May, 1956. This alternative may be an expanded graduate program.

Elementary Education

All members of the staff have been assisting at conventions, institutes, festivals, Department of Education committees and meetings of the Home and School Association. Certain members of the staff are particularly prominent in this regard. Mr. Hodgson is provincial vice-president of the Alberta Home and School Association and Miss Lampard is a member of the National Council of the same organization. Miss Lampard is also a member of the Board of Representatives of the National Association for Remedial Reading. Mr. Hodgson also participated in the editing of a series of arithmetic texts for the elementary schools. Miss Lampard was a contributor to the Alberta Journal of Educational Research. Mr. Card took an active part in the work of the Community Planning Association of Canada. He is a

member of the National Council of that body. Dr. McDougall was chairman of the Edmonton Public Library Board.

Mr. Forbes was studying in the United Kingdom and Europe during the session. During his absence his teaching responsibilities were assumed very capably by Mr. E. N. Yates. During the year Mr. Yates designed the stage sets for the Faculty Christmas Play and for the Studio Theatre performance of the "Would-be Gentleman." He also had an exhibition of his paintings in the Rutherford Art Gallery.

Secondary Education

In addition to their teaching duties, the members of the Division of Secondary Education have been active in many ways. All members of the Division have participated in the work of various sub-committees of the Department of Education. Two members have served on the High School Curriculum Committee.

Messrs. Baker, Coutts, and Sparby spoke at teachers' conventions. Messrs. Baker, Coutts, and Melsness assisted school superintendents with teachers' institutes in several Alberta centres. Messrs. Coutts, Melsness, and Sparby assisted as advisers to the C.E.A.-Kellogg Project in Educational Leadership, Mr. Sparby serving on the central planning committee of the project. All members of the division took leadership responsibility during the annual conference of school superintendents in January, 1955. All, too, have contributed to Home and School Association and Career Day programs.

Dr. Baker served as editor of the Alberta Journal of Educational Research. Dr. Coutts wrote a series of ten articles which appeared in *The Modern Instructor*, and acted as general editor of a high school textbook in English, the co-editors of which were Messrs. J. W. Chalmers, M. D. Meade, F. M. Salter, and W. S. Waddell.

The members of the Division have been involved in planning the graduate and research programs of 64 students and have assisted on various thesis committees for both M.A. and M.Ed. candidates.

Mr. H. C. Melsness completed requirements for his M.Ed. degree which was conferred by the University of Minnesota in December, 1954. Mr. B. E. Walker has completed research on his Ph.D. thesis (Stanford University).

Dr. Baker assisted in drafting a brief which was presented by the A.T.A. to the legislature of the province, Mr. Sparby presented a brief for the A.T.A. to the Commission on Metropolitan Development in Calgary and Edmonton.

In addition, Division members have served on various university committees.

Educational Psychology

The academic year just completed has been extremely heavy. This seems to have resulted from wider extension activities, the growth of the research movement, and increased enrolment.

All members of the Division participated in the supervision of practice teaching, carrying an average of twelve candidates for each instructor. The present organization of practice teaching encourages some weekly supervision and observation of teaching. When it is realized that there is constant conflict with the other commitments of the staff members it can easily be seen that practice teaching can become a burden.

During the year nine candidates of the Division received the Master of

Education degree. Eleven were receiving fairly constant help and supervision of thesis work.

The Clinic operated under the direction of Mr. Wilfrid Pilkington with the assistance of Mr. R. J. C. Harper. It is estimated that each of these two instructors devoted in the vicinity of 400 hours to the supervision of clinical work.

Four staff members attended the Barrhead Clinic, which proved to be one of our most successful extension trips. Each staff member worked on approximately 10 students and all four participated in a panel discussion at the Barrhead Home and School Association meeting.

During the year Dr. Clarke wrote two psychological papers, in one of which he was assisted by Mr. Wilfrid Pilkington.

During the year 7 radio talks were delivered by staff members of the Division. Sixty-nine talks were delivered to conventions, clubs and Home and School Associations. While the number seems very high it is very difficult to avoid requests for this service.

In recent years Career Nights have become popular throughout the province. These affairs are time-consuming, frequently requiring the absence of the instructor for one or two days. The Division participated in 10 Career Nights during the 1954-55 session.

One of the greatest responsibilities of the Division results from membership in committees and organizations. While such participation is a privilege and opportunity for service, it adds to an already heavy load.

The year 1954-55 showed a continuance of the work of the Alberta Advisory Committee on Educational Research and increased activity in the Faculty Committee on Educational Research. In these activities all members of the Division were active.

Much effort went into the production of Volume 1, Number 1 of The Alberta Journal of Educational Research and of subsequent issues still unpublished. A considerable portion of the time of the Chairman was devoted to problems of organization and financing of research.

Report of Dean R. M. Hardy of the Faculty of Engineering

The number of students in this Faculty is 720, as compared to 621 and 504 during the past two years. The somewhat abnormal rate of increase in registration in the Faculty which has been evident for the past two sessions has therefore continued.

The numbers in the graduating class this year however are at a minimum but will show a marked increase over at least the next three years. The demand for engineering graduates from industry and the public services is again substantial this year. This coupled with the comparatively small number in the graduating class has resulted in a situation in which the demand considerably exceeds the supply of engineering graduates not only in Alberta but in all other parts of Canada. This is the case for graduates in all fields of engineering but exists to an extreme degree in the field of mining engineering because of the very small number choosing to specialize in this field. There are indications, however, this year that an increasing number of students are now being attracted to mining engineering.

For this session the availability of competent teaching staff was improved as compared to recent years. However, the Faculty suffered the loss of Dr. I. F. Morrison and Dr. K. A. Clark by retirement after long years of

outstanding service to the Faculty and the University. The service of Dr. Morrison extended back to the first graduating class in the Faculty.

Considerable attention in the Faculty is still being directed to the adequacy of the preparation of students in the high schools of the Province for the first year of engineering. The transition from the methods of the high school to those in the University appears to be becoming more difficult for the students.

The number of graduate students in the Faculty remained about the same as for the past three sessions. It is still very difficult to attract students to a graduate program in competition with the present heavy demand for immediate graduates. It is becoming increasingly evident that the number of young engineers of superior ability who are proceeding to graduate studies is quite inadequate to satisfy the national needs.

All departments in the Faculty have been active in research work and instruction at the graduate level. One student has been accepted for a Ph.D. program in the Department of Chemical and Petroleum Engineering. This is the first student to be accepted in the Faculty for this degree.

Work has continued in the department of Mining and Metallurgy on the operating characteristics of the Driessen cone, as applied to the concentration of uranium ores. Funds for this project again were provided by the Atomic Energy Control Board in Ottawa. The project has now progressed to the point where it is believed the results are sufficiently conclusive to warrant trials on a commercial scale.

In the Department of Civil Engineering research was continued concerning the characteristics of light weight aggregates for concrete; studies of pre-stressed concrete, studies of glued laminated timber girders; river hydraulic studies; the effect of frost action on the strength characteristics of soils; aerial photographic interpretation to indicate subsoil characteristics; and continued studies of chemical treatments of soil to prevent frost heaving on highways, runways and airports. Substantial financial assistance has been made available to the department for the work on river hydraulic studies by the National Research Council, and for the Chemical treatment of soils by the Alberta Research Council and the Prairie Road Builders Section of the Canadian Construction Association.

In the department of Electrical Engineering a comprehensive study of a short circuit calculator for the Prairie Provinces was undertaken for a committee of the Canadian Electrical Association.

In the department of Chemical and Petroleum Engineering research work continued on "Pipe Line Flow Characteristics of Selected Crude Oils" with continuing financial assistance for the project from the Interprovincial Pipe Line Company. In cooperation with the Alberta Research Council work was continued on the natural gas utilization project. The particular subjects of study under this project are, "The Partial Oxidation of Butane"; "The Pyrolysis of Methane to Carbon Black" and "The Absorption of Properties of Linde Molecular Sieve towards Natural Gas Constituents". Other studies underway in the department are concerned with "Vaporization Losses from Crude Oil During Storage"; "The Electrical Resistivity of Drilling Mud Filtrate and Filter Cake" and "Low Temperature Fluidized Carbonation of Alberta Coals". This last project is being undertaken by a Cominco Fellow.

Various members of the academic staff of the Faculty have been active in providing consulting engineering services, and specialized technical assistance has been made available to both public authorities and industry.

Extension activities of members of the staff continued at about the same level as in past years. A wide variety of questions from individuals with problems of an engineering nature are handled by correspondence. Lectures of an extension nature were given by staff members at many centres within the Province and at Regina and Whitehorse outside the Province. Invitations were extended to two staff members to present papers to two major conferences in the United States. These were the Sedimentation Conference sponsored jointly by the National Science Foundation of the United States, the University of Tennessee and the sedimentation committee of the Hydraulics Division of the American Society of Civil Engineers held at Fontana Village, Tennessee in October, 1954; and a conference on the applications of Soil Mechanics to mining problems held at Duluth, Minn., in January, 1955 and sponsored jointly by the American Institute of Mining & Metallurgy and the Extension Department of the University of Minnesota. In co-operation with the Department of Health of the Province a successful three day sanitary inspectors' course was offered in the Civil Engineering Department as an extension activity. Space was provided for a one day conference on Muskeg sponsored by the sub-committee on Snow and Soil Mechanics of the Division of Building Research of the National Research Council and staff activity participated in the program.

Report of Dean W. F. Bowker of the Faculty of Law

The number of students remains at the level of the past two years, with twenty-eight in the graduating class, thirty-eight in second year and thirty-five in first. Opportunities for graduates in law remain good; this school does not satisfy the demand for articulated students, and a quarter or more of those now under articles in Alberta are from other law schools. The general expansion of business in the province assures good opportunities after admission to practice.

The number of former students who are pursuing graduate study is greater than it was right after the war. Two of them, David McDonald and James Redmond, are at Oxford University as Rhodes Scholars, and one of the present graduating class, Hugh Lawford, is Rhodes Scholar for 1955. Two other graduates, D. Sherbaniuk and L. A. McLean, are studying at the Faculty of Law, University of Toronto, and another, N. Simons is studying international law in Paris.

The work in the faculty here has proceeded satisfactorily. The new library continues to be a great help to the students, and they make good use of it. We still arrange from time to time special talks by able speakers. The talk of Mr. Justice H. J. Macdonald on hints to young lawyers and the talk of L. Y. Cairns, Q.C., on legal ethics have become annual affairs. There is nothing new in the organization of the faculty or the courses, though we would like to complete a revision of the curriculum by the next year or so. There has been no change in personnel on the full-time staff, or on the part-time staff, all of whom continue to give available help.

As for research on the part of the staff, the volume of published material is gradually increasing. Large research projects are under way by members of the staff; it is hoped these will ultimately be published.

This year the students have undertaken to revive the Alberta Law Quarterly but it is too early to know whether the venture will be a success. The project is of course worth-while but there may be a difficulty in obtaining enough material of good quality.

The relations between the faculty and the Law Society of Alberta continue to be close and cordial.

Report of Dean J. W. Scott of the Faculty of Medicine

We admitted sixty students to first year Medicine in September, 1954, consisting of fifty-nine men and one woman. This is the maximum number that can be accommodated. The number of applicants for admission to Medical Schools in North America has fallen off sharply in the past five years. Our Faculty shares in this decrease. Arising out of the fewness of applicants we have found it necessary to accept a few students with less than the required average of 65 per cent in the two years of college work.

The enrolment at the commencement of the term in September, 1954, was as follows:

	<i>Men</i>	<i>Women</i>	<i>Total</i>
1st year	59	1	60
2nd year	51	5	56
3rd year	56	2	58
4th year	53	3	56
	<hr/> 219	<hr/> 11	<hr/> 230

One student in each of the first and third years is a veteran. Three first year students and one second year student have since withdrawn for various reasons.

The newly organized School of Physiotherapy, under the direction of Dr. J. R. Fowler, has been organized within the Faculty of Medicine. The establishment of this school will, we feel, serve a useful purpose in this province. It has, however, increased the teaching load in the Department of Anatomy, Physiology, Pathology, Medicine, Surgery, and Psychiatry.

Radiology, Psychiatry, and Paediatrics are now organized as separate departments within the Faculty. There have been few changes in staff. The Professor of Medicine retired, continuing as Dean of the Faculty, and was replaced by Dr. Donald R. Wilson, who has been appointed on a full time basis. Dr. H. V. Rice resigns as Professor of Physiology at the end of the present session.

Two distinguished retired staff members died—Dr. D. G. Revell, our first Professor of Anatomy, and Dr. Hastings Mewburn, our first Clinical Professor of Orthopedic Surgery.

The Department of Biochemistry graduated its first Ph.D. student, who was also the first candidate to receive this degree in the Faculty of Medicine.

In the Spring and Fall Convocations of 1954 sixty-three students were granted the degree of M.D., and one student was granted the degree of B.Sc. in Medicine.

The primary interest of our Faculty is undergraduate training in Medicine. In this program both the basic science and the clinical departments have gained strength and shown increasing enthusiasm. Since the first class in Medicine graduated in 1925 we have trained 1,011 physicians, of whom 387 are practising in Alberta.

The Committee on Graduate Training reports another successful year in the training of doctors for specialist's certificates and degrees. However, it is noted that no financial assistance is available for these people and, as a result, the more brilliant, and hence more desirable, take their post-graduate work in other centres where such assistance can be obtained. Thus, many of the best men leave Alberta and often do not return. It is felt that the time has come to investigate the possibility of instituting some form of bursaries or fellowships to attract the most desirable candidates to our post-graduate training program.

The Committee on Continuing Medical Studies has in the past year greatly expanded its program for bringing recent medical knowledge to the attention of practitioners of Alberta, through their District Medical Societies. From January to March, 1955, with the co-operation of the College of Physicians and Surgeons of Alberta, teams of speakers from the University have visited nine centres throughout the province for the discussion of topics ranging from "Arthritis" to "Radioactive Iodine". A total of twenty members of the staff of the Faculty of Medicine have gone on these trips and given their services willingly and with no remuneration. These talks were very well received and it is planned to continue and expand this program in future years. The first Sectional Meeting of the Canadian College of General Practice was held in Red Deer in April, 1955. The program was provided by members of our basic science and clinical departments.

The Medical Refresher Course, given by the University, has also been conducted by the above Committee. In the past twenty-three years a total of 3,048 physicians has attended these courses and of this total 1,549 were engaged in rural practice and 1,499 in urban practice. In this way, also, members of the University staff have had a large share in furthering the spread of medical knowledge throughout the province with no financial benefit to themselves.

As usual, the staff has carried on a major research program in spite of their teaching and administrative duties. The number of students who apply for graduate training in the basic science departments has fallen off appreciably. A list of the publications resulting from this research is appended to this report.

Many of the staff have travelled to scientific meetings to deliver papers or to act as chairmen or as members of the executives of the societies involved. Others hold administrative positions on various fund granting bodies such as the National Research Council and National Cancer Institute.

During the past year the Western Regional Group of the Division of Medical Research of the National Research Council met in Edmonton under the auspices of the Faculty of Medicine. One hundred and six medical scientists from the four Western Provinces registered for this event.

A signal honor to the University was the invitation to our Professor of Surgery to deliver the Moynihan Address before the Royal College of Surgeons of England in May, 1954.

The University received grants to aid research from the National Cancer Institute, National Research Council, Defence Research Board, and Alberta Cancer Society—the latter supports the McEachern Cancer Research Laboratory, which is now becoming overcrowded, so great is the staff interest in the further development of research on the campus.

In the past year the Muttart Foundation of Edmonton has endowed an Associate Professorship in Medical Research for the study of any medical problems deemed suitable by the Professor of Medicine. As yet no one has been named to this position.

Distinguished visitors who have visited the Faculty in the past year and have spoken to staff and/or students: Dr. R. L. Noble, Professor of Medical Research, University of Western Ontario; Dr. W. S. Hartroft, Professor of Pathology, Washington University, St. Louis, Missouri, U.S.A.; Dr. J. P. Gray, of Parke, Davis and Company (sponsored by the American Medical Writers' Association); Sir James Learmonth, Professor of Surgery, Edinburgh University.

Report of Prof. H. E. M. Penhale, Director of the School of Nursing

Forty applicants were admitted to the first year of the basic degree program in September, 1954, forming the largest first year class in the history of the School. While it was possible to take the first year of the degree course at the Calgary Branch, beginning in September, 1951, the number who have registered have remained very small. This year, four students registered; a larger number is anticipated for the coming year.

As of October 1st, there were 144 full time and two part time students registered in the degree program. This represents an increase of forty-four students over the preceding year as well as a very substantial increase over all previous years.

The large number of students who do not complete the final year of the degree program has been of concern to the School. This year, however, there has been some improvement. In September, 1950, twenty-five students registered in the first year of the degree program. Five withdrew at the end of the first year, and five at the end of the fourth year. This forty percent loss, while still high, shows a considerable improvement over the preceding year when the loss was fifty-two percent.

A total of twenty-six graduate nurses registered in the diploma and certificate courses—seven in Public Health Nursing, six in Teaching-Supervision in Schools of Nursing, and 13 in Advanced Practical Obstetrics. These figures represent no marked change except in the course leading to the Certificate in Advanced Practical Obstetrics. This course, offered for the first time in 1943, has been repeated nine times. The number registering each time has varied between three and seven, the average being four. This year thirteen students registered. This increase may be due, in part, to changes made in the course. In former years it was designed primarily for nurses engaged in public health nursing, whereas this year the scope of the course was broadened in order to meet the needs of nurses employed in hospitals.

During the year the School presented two Refresher Courses at the University to allow nurses to keep abreast of the most recent information in their fields. "Nursing Care of the Poliomyelitis Patient" was offered May 31 - June 4, 1954. It was well attended, with a large proportion of the registrations from nurses in the smaller centres. "Ward Management" was offered during the fall. It was the first evening course to be offered by the School. The registrations far exceeded the available facilities. Plans for another refresher course to be offered in May are being finalized.

Demands upon the time of the staff for extramural functions are becoming increasingly numerous. The staff, however, considers it a privilege to

serve as officers of nursing societies, both provincial and national, and to represent the University on organizations who are working for better community health.

Report of Dr. M. J. Huston, Director of the School of Pharmacy

Academic

Total enrolment in the School of Pharmacy for the 1954-55 session was 122. This is made up of 37 in first year, 41 in second year and 44 in third year. In addition, there were two graduate students undertaking work towards the M.Sc. degree.

Dr. M. J. Huston, Director of the School of Pharmacy returned from sabbatical leave. During the year he undertook research work at Friday Harbor Laboratories, the University of Washington and the University of Hawaii.

Mr. J. R. Murray represented the University of Alberta at the meeting of the Canadian Conference of Pharmaceutical Faculties in Halifax in September.

Dr. B. E. Riedel attended the Teacher's Seminar on Pharmaceutical Education held at the University of Connecticut, Storrs, Connecticut.

The Council of the School approved a course in Business Administration as an option in the third year.

The Alberta Pharmaceutical Association increased the amount of the prizes in first and second year from forty dollars to one-hundred dollars. These awards will be known as the Alberta Pharmaceutical Association Scholarships.

The Dean of Pharmacy, University of Saskatchewan and seven of his staff visited the University of Alberta for an inter-departmental meeting. The Dean of Pharmacy, University of British Columbia also attended. Two days were spent in examinations of the laboratories and facilities and in discussions of teaching methods. The success of the meeting has lead to plans for a continuation of the meetings. The Alberta staff will pay a visit to Saskatchewan next year.

Extension

The refresher course in conjunction with the annual convention of the Alberta Pharmaceutical Association was again conducted by the School of Pharmacy. The meetings were held in Edmonton.

Bulletins on recent advances in pharmacy were prepared and distributed to all practising pharmacists in the province.

The School organized and conducted refresher courses at nine centres throughout the province. Expenses of the tour were paid by the Alberta Pharmaceutical Association and the Canadian Foundation for the Advancement of Pharmacy. Meetings were held in Edmonton, Calgary, Lethbridge, Medicine Hat, Vegreville, Camrose, Red Deer, Stettler and Peace River. Over 300 pharmacists attended.

Dr. Riedel again served as an abstractor for the Physiology, Biochemistry and Pharmacology section of *Excerpta Medica*. He also continued his position as Chief Training Officer for the University Reserve Squadron. Mr. Anderson was active during the year in the Y's Mens Club, and Dr. Huston in Kiwanis.

Staff members presented papers to professional societies, service clubs and similar groups as follows: Mr. Murray 8, Dr. Riedel 21, Dr. Huston 26, Mr. Anderson 1.

Research

Dr. Riedel continued his research in the isotope laboratory of the McEachern Cancer Research Laboratory. Mr. D. C. Hobbs was awarded the M.Sc. degree for work undertaken under Dr. Riedel's direction.

Mr. Murray continued his research on the effect of certain drugs on experimental hypertension in animals.

Mr. Anderson investigated the use of new materials in the formulation of preparations for external use.

Dr. Huston while on leave spent the summer months investigating the mechanisms of adjustment of water balance in certain molluscs. During the winter, working with Dr. A. W. Martin of the University of Washington, he developed a modification of the Warburg technique and applied it to measurements of the effect of certain drugs on tissue respiration.

Other problems being investigated in the department included: measurement of interfacial tension using the Du Nuoy Tensometer; photomicrography of crystals of alkaloidal salts; assay of pepsin by electrophoresis; testing of compressed tablet formulations; analysis of adequacy of reference books in drug stores; assay of various tobaccos for nicotine; phosphorus uptake in tumors; titrimetric assay of barbiturates, in vitro examination of enteric coating; chemical evaluation of antacids.

Eight graduates of the Alberta School of Pharmacy were undertaking work towards advanced degrees in the United States during the year.

Report of Dr. J. R. Fowler, Director of the School of Physiotherapy

It is indeed a unique honour and a privilege to present the first annual report for the new School of Physiotherapy. In any initial report it is only right that a short history accompany the remarks. Within the past 10 years there has been an increasing realization that medicine does not stop at scientific diagnosis and active treatment of the acute illness but that it has a further and ever increasing responsibility in therapeutic rehabilitation in a multiplying and an ageing population. As result of World War I and World War II experience in rehabilitation procedures, the ancient and simple skills of the use of heat, light, water, electricity, and massage together with the personal rapport and psychological support to a patient has again become a most important part of the treatment of the crippled and the chronically ill. In order to provide such a service the medical profession required skilled therapists to whom they could entrust their patients for such treatment. As a result it was fitting that in training these people rigid standards should be set and a scientific background be given in order that a medical therapist be graduated and not a mechanical technician.

In 1953 the province of Alberta suffered a severe polio epidemic which left several hundred patients with varying degrees of paralysis. This precipitated a realization that the important treatment factor of Physiotherapy was not obtainable due to the scarcity of physiotherapists. At present the medical profession are dependent on overseas or Eastern Canadian therapists. All are in such demand throughout the country that local provincial need could not be met. As a result, through energetic and progressive thinking by the authorities a School of Physiotherapy was recommended in the late fall

of 1953 and became a reality in September 1954. With the inception of such a school the province now has a potential annual pool of physiotherapists who will be available to the medical profession for the rehabilitation treatment of many diseases requiring this service. It is important to realize at this point that physiotherapy is not primarily concerned with poliomyelitis but with many disabilities including those caused by arthritis, cerebral palsy, multiple sclerosis, strokes, traumatic injuries, paraplegia, tuberculosis and many others.

In order to set up a school in such a short time considerable planning had to be done to assure proper space and practical class room facilities. Also the most important factor was the procurement of qualified teachers. The University was most fortunate in securing Miss Nancy Rendell who had previous experience in Toronto and with her English and Canadian qualifications and the blessing of the Canadian Physiotherapy Association the school indeed got off to a good start. The Anatomy, Physics, Physiology departments and the Nursing School entered this new course with allied interest and patience with a new group of students who in most instances did not have a basic background of other students that they were accustomed to teaching. It is pointed out here that the School appreciates the time and space provided by these departments, as new courses are always taxing an already overloaded situation. Psychiatry, Medicine and Surgery, and Pathology were given by the University Hospital Staff and it was gratifying to hear the favourable impressions of the students by these instructors. Miss Austin of the Physical Education Dept. gave an hour of her time once a week in the instruction of Water Safety.

Space for lectures, practical class rooms and offices were adequately provided for with the renovation of the Canteen Building. With the second year, the whole of the Canteen Building will be taken over by the School.

There were 18 students enrolled in the first year, which was indeed gratifying considering the short period available for preparation to enter the School. In order that the students be properly prepared academically it was required that they have their Senior Matriculation with subjects equivalent to that of students entering the B.Sc. of Nursing. The School is capable of handling a maximum of 30 students per year. The second year will require a further instructor and the University has been fortunate in securing the services of Miss M. J. Gordon who is a qualified teacher from England and is at present finishing a year in the Toronto School of Physiotherapy, as instructor.

The students complete each academic year with 3 months summer internship at approved hospitals. Each student will receive \$50.00 a month to help defray her living expenses. In the fall of the second year the students will attend the fall convocation and receive their diplomas in physiotherapy. The Canadian Physiotherapy Association has agreed in principle to the school curriculum. With this forthcoming approval, Alberta graduates will be on an equal basis with those of all other institutions and will have reciprocity with the English Society.

The Director and staff wish to extend their thanks to the Hospitals and University Departments for their great interest in making this first year a successful one.

Report of Dr. M. L. Van Vliet, Director of the School of Physical Education

Staff

Throughout the past twelve months, members of the staff of the School of Physical Education assisted or directed the following services:

- 1) Provincial Recreation Institute,
- 2) Provincial Track and Field School,
- 3) Northern Alberta Basketball Referees' School,
- 4) Red Cross Swimming and Water Safety Program,
- 5) The Provincial Health and Recreation Program,
- 6) The program conducted by the Edmonton Recreation Commission, and
- 7) Provincial Basketball Referees' School.

Four members of the staff of eight are registered for graduate study during the 1955 summer session. Their widespread enrollments include the University of Minnesota and the University of California.

Degree Course

During the 1954-55 session, forty-one students were registered in Physical Education with ten students in the graduating class.

Graduate Employment

For the past two years, at least four times as many positions have been open as there have been graduates available. This situation is especially pronounced with the girls—each female graduate having a choice of five or six positions in the areas of public schools, private agencies or municipal recreation. The recruiting of girls into this field continues to be a major problem.

Faculty of Education

The School continues to assume responsibility for instruction in Health Education and Physical Education for all Faculty of Education students. Enrollment during the 1954-55 session was:

	Sections	Enrollment
Physical Education	9	343
Health Education	8	351

Service Program

This program required of all first-year students included tennis, body mechanics, golf and volleyball for the women and touch football, volleyball, badminton, basketball and golf for the men. The enrolment and sections were dispersed as follows:

	Sections	Enrollment
Women	6	136
Men	12	558
		<hr/> 694

Intramural Activities

The growth of intramural sports during the past few years has developed to the point that present facilities and staff make it impossible to provide for further expansion. A brief resume of this session's activities follows.

	WOMEN		MEN	
	No. of Teams	No. of Participants	No. of Teams	No. of Participants
Softball		23		
Golf	6	18	20	96
Tennis	6	24	18	62
Track & Field	5	46	18	91
Volleyball	12	146	24	240
Table Tennis	8	74	18	112
Swimming	6	37		
Badminton	12	75	14	76
Bowling		27		
Broomball	3	10		
Basketball	7	126	32	300
Curling	16	64	37	148
Cross Country			26	206
Touch Football			26	260
Frontier Day			16	136
Hockey			11	132
TOTAL	81	670	260	1859

Grand Total—(Men & Women) 341 teams—2,529 participants.

Intercollegiate Athletics

This year the intercollegiate program included tennis, golf, volleyball, cross country (men), basketball, figure skating (women), curling, hockey (men), and swimming. The University of Alberta won championships in tennis, golf, volleyball (men), cross country, swimming (women) and hockey.

Brandon College was accepted as a competing member of the W.C.I.A.U. on a trial basis. The College competed in cross country, hockey and curling and their teams were welcome additions to the Union.

Report of Dr. A. L. Doucette, Director of the Calgary Branch

1. Enrolment

The overall day-time enrolment at the Calgary Branch for the 1954-55 session, including partial students, is 366, an increase of 16 over the 1953-54 student population.

The total Arts and Science, Commerce, and Nursing day-time enrolment, including partial students is 60, being 4 less than the 1953-54 total, but 22 more than in 1951-52, the year when Arts and Science was inaugurated as a Faculty Branch in Calgary.

The total *Faculty of Education* day-time student enrolment, including partial students is 306, or 26 more than last year. In the Faculty of Education, *excluding* the 64 partial students, the total in all teacher-training day-time programs is 242 which is 46 more than last year's number of 196. This is an increase of about 24 per cent in our teacher potential group.

The number of students in the one-year emergency teacher-training program increased by about 80 per cent over last year, reaching the figure of 160. This total is an all-time high, but was equalled exactly by the one-year group in the 1949-50 and 1950-51 sessions.

The enrolment among Bachelor of Education degree students dropped this year to 82 students compared with 111 last year, with a considerable reduction in the numbers in the second year transfer program in the Bachelor of Education course leading to standard certification. The introduction of terminal certification after one year of training has eliminated the compulsion to complete a second year of training for terminal certification of teachers.

There has been a steady and continuous rise in the curve of total student enrolment at the Branch during its ten years of operation. Student population has doubled in ten years since 1945, the year when the Branch started operations. Only in one year of the ten did the curve of growth fall back, namely in 1951-52, a year when possibly university enrolments everywhere were at their lowest ebb.

The overall figure of 366 students during this 1954-55 academic year is distributed as follows:

160	One-year students
82	Bachelor of Education students
46	Arts and Science and Commerce students
78	Partial students in Education and in Arts and Science

366 Total

The University Branch also serves about 70 Evening Division credit students and approximately 400 non-credit evening students. This represents a university service to the Calgary community touching some 800 persons.

2. *Home Distribution of Students*

The percentage of students whose home residence is in Calgary is 40 per cent. In the *Faculty of Education* about seventy-two per cent come from outside Calgary. In the *Faculty of Arts and Science* about seventy-two per cent come from within Calgary.

3. *Course Offerings*

The only new course offering this year was the first year of the Bachelor of Science degree program in nursing. These students were easily accommodated and we could handle more registrants in this program.

Sessional instructors continued to give offerings in Accounting 1, Commercial Law 41, and Latin 2.

4. *Faculty of Education Staff*

Miss June Holman of the Department of Physical Education was a new appointment replacing Miss Margaret Visser. Miss Holman assists Mr. L. Goodwin with instruction in Physical Education and also offers classes in Educational Psychology.

Mrs. W. F. Browne replaced Mrs. R. Zwicky in the Music Department in January, 1955. Mr. Howard Barnett is still on leave of absence doing post graduate study at the University of California in Los Angeles and will return to Alberta in September, 1955, to the Faculty of Education in Edmonton.

Mr. Frank Baer, of South Africa, was a new appointment, and he offered instruction in the Faculty of Education in Psychology, Geography, and English. His contribution served to reduce the heavy staff load resulting from the increased enrolment in the one-year teacher-training program experienced at the Branch during the session.

5. *Staff—Faculty of Arts and Science*

Dr. W. F. Allen rendered fine service in his role as Acting Assistant to the Director, replacing Dr. V. E. Graham who was on leave of absence to teach French at the University of Michigan at Ann Arbor, Michigan, for one year.

Mrs. E. H. Hanna replaced Dr. W. Watson in our English Department. Mrs. Hanna offers English 2 and Children's Literature (English 54).

Dr. Margaret Sullivan acted as a substitute French instructor for Dr. V. E. Graham during his year's leave of absence in the United States.

6. *Conventions, Home and School Talks, Institutes, Workshops and Career Days*

Several staff members in both faculties contributed generously to these types of in-service and professional activities.

7. *The Calgary Branch of the Humanities Association of Canada*

This association held five meetings on the campus, two of which featured faculty members from Edmonton, namely, Professors Salter and Starchuk.

The average attendance at meetings was approximately fifty. The Association sponsored an essay competition on the subject: "The Value of a Liberal Education Today". A prize of \$25.00 was awarded for the best essay. The Association is grateful to the University in Edmonton for making speakers available to us again this year.

It should be mentioned that one of the lecturers was Professor Daniels of the English Department of the University of British Columbia.

8. *Library*

Our Librarian, Miss Mary I. Grant, has been carrying on considerable correspondence with people in Iraq concerning the establishment of more library service there. The reports have been on our experience here in Canada.

Our Librarian attended the Canadian Library Association Conference as one of the University delegates last summer. She prepared a report and visited University libraries in the Maritimes and in Ontario.

9. *Calgary Naturalist Club*

Mr. C. Hampson of the Faculty of Education is vice-president of this club which met monthly at the Calgary Branch of the University. Mr. Hampson is doing a fine quality of first-hand field research work on birds in the Calgary vicinity.

10. *Medical Services*

Miss M. O. Cogswell is the nurse in charge of medical services in Calgary, and also does supervisory work in the Schools of Nursing throughout the province.

There is no infirmary service available to students at the Calgary Branch comparable to that which exists in Edmonton. In January a committee was formed to act in an advisory capacity to the supervisor of medical services. Information regarding medical services is to be prepared for distribution to students at the time of registration in the fall of 1955.

During the 1954-55 session, 283 students received routine physical examinations at the Calgary Associate Clinic and an additional 89 made special office calls.

There were 291 absences due to illness, a figure much in excess of that during the previous year. Twenty-four students were absent for a period of a week or more, 18 of these having "flu" or upper respiratory infections.

11. *Alliance francaise*

A total of five meetings were held at the University Branch. Dr. Margaret Sullivan was the official vice-president but presided at most of the meetings. Her contribution has been gratifying.

12. *Advisory Services and Placement*

This service is under the direct jurisdiction of Dr. J. W. Woodsworth who acts in liaison with the Advisory Services in Edmonton. The service is steady and time-consuming, but nevertheless is a very important aspect of student organization. Dr. Woodsworth is very generous, indeed, in acting as head of Advisory Services on the Calgary campus.

13. *Conventions attended by the Director*

- a) The Western Canada Conference on Teacher Education.
- b) Canadian Education Association meeting in Edmonton in September, 1954, as a member of the National Planning Committee.
- c) The North Central Plains Conference on Teacher Education at Billings, Montana in April, 1955, as a recorder.

14. *Student Activities*

Student affairs are commendably handled at the Branch and for the first time in ten years as a major function (Color Night) was held at the Palliser Hotel. This affair was a sort of "coming-of-age" function. Student participation in extra-curricular matters has been the best this year in the history of the Branch, but continuity work-load falls on the shoulders of a small number going on into the second year of the Bachelor of Education degree program.

15. *Staff Load in the Faculty of Education*

The staff load this year was unduly high for certain staff members. The Board of Governors have approved two new appointments, a lecturer and an assistant professor. These two additions to the staff of the Faculty of Education will serve to equalize the burden of classroom instruction.

16. *Provost Work*

Mr. E. W. Buxton retires after two 3-year sessions as Assistant Provost of the University. He has made a remarkable contribution to student life at the Calgary Branch during his term of office. He will be succeeded by Dr. A. Gibb of the Faculty of Arts and Science.

17. *World University Service*

World University Service was organized for the first time this year on the Calgary campus. The Treasure Van sale totalled over \$3,100.00 gross in three days selling. Plans are being made to send a delegate to the Japan seminar of World University Service in June, 1955. It is felt here that such a delegate should go from Calgary only once in three or four years. The contribution of the Board of Governors to the expenses of the Calgary delegate is much appreciated.

18. *Spiritual Opportunities of the Calgary Branch*

The following organizations, spiritual in nature, exist at the Branch: Inter-varsity Christian Fellowship, Student Christian Movement, the Lutheran Club, the Latter Day Saints Club, the Newman Club, and the World University Mission.

19. *Research*

The following persons have made a contribution to research and such related activities:

- a) Doucette, A. L., Science Interests at the Junior High School Level, U. of Man., Faculty of Education Research Bulletin No. 18, December, 1954, pp. 35-51.
- b) Graham, V. E., A study in Structure and Poetic Method by Henry A. Sauerwein, Jr. (Johns Hopkins Studies in Romance Literatures and Languages), extra volume 29, Baltimore: Johns Hopkins press, 1953, 2 pages.
- c) Buxton, E. W., completed an Anthology in Literature under the heading of Creative Living for Grade 11 students in the high schools of Alberta. This book was published in late 1954 and is to be followed by a published guide book for teachers. Mr. Buxton has prepared a thesis for the University of Washington in partial fulfilment of requirements for his Master of Arts degree on the subject of "A Guide Book for Grade 11 Literature."
- d) Mr. A. R. Prince, Assistant Professor of Botany and Zoology is continuing his research into the classification of mosses and lichens for the Department of Forest Pathology.

20. *Extension Work*

During 1954-55 three Evening Division university credit courses were offered: Chemistry 40, Accounting 1, and Education 308, the latter a course in Guidance. Two of these courses were offered by our Branch Faculty staff members. Dr. W. F. Allen instructed in Chemistry 40 and held a laboratory session on Saturday mornings. The enrolment approximated 75 students.

The Department of Extension also offered some courses which were not for University credit but as a service to interested persons in the community. These were, Real Estate Principles and Practice (first and second year), Landscaping the Small Lot, Conversational French, and Financial Statement Analysis. The enrolment in these courses approximated 350 persons.

21. *Conclusion*

The Calgary Branch continues to operate under the Board of Governors' frame of reference. The University in Calgary is a branch of the parent institution in Edmonton and is considered in no way an autonomous institution. Its present quarters are crowded and with continued expansion of the Institute of Technology and Art, and with the erection of the new Provincial Auditorium with large accommodation space for car parking, the University campus in its present location in Calgary is just about crowded out. The sharing of joint premises with the Provincial Institute of Technology and Art is amicable but not convenient from an administrative point of view.

In general, the operation of the Calgary Branch of the University is healthy and sound.

Report of Dr. John W. Gilles, Director of the Summer Session

Registration and Attendance

The advance registration for the University of Alberta Summer Session reached a total of 2,039, an increase of seventy-four over that of 1953. However, a total of 431 students failed to attend, so that the actual registration amounted to 1,608, a decrease of fourteen from the preceding year. To the 1,608 must be added another 132 students who were registered in the Emergency Teacher Training Program. Thus the total number of students in actual attendance in the 1954 Summer Session was 1,740. A summary of the attendance figures follows:

	Veterans			Civilians			Faculty
	Men	Women	Total	Men	Women	Total	Total
Education	27	---	27	487	899	1386	1413
Arts & Science	9	---	9	33	31	64	73
Commerce	---	---	---	1	1	2	2
Engineering	---	---	---	3	---	3	3
Household Economics ..	---	---	---	---	1	1	1
Pharmacy	---	---	---	5	3	8	8
Graduate Studies	12	---	12	53	13	66	78
Auditors	1	---	1	4	4	8	9
Special	---	---	---	9	12	21	21
	49	---	49	595	964	1559	1608
Emergency Teacher Training Program							132
							<hr/> 1740

It is interesting to note that, of the students who attended the regular Summer Session, 87.8% were registered in the Faculty of Education, while 41.8% were in the School of Graduate Studies. These figures are practically identical with the corresponding ones for 1953.

Instructors

The Summer Session teaching staff, including that of the Emergency Teacher Training Program, was comprised of a total of ninety-three instructors, six more than in 1953. The following summary indicates the sources from which these instructors were drawn.

Classification of Instructors

Full-time members of University staff	46
Instructors from Affiliated Institutions	2
Visiting Instructors from Alberta:	
Department of Education	4
School Systems	17
Others	3
	<hr/> 24
From Other Provinces	11
From U.S.A.	10
	<hr/> 45
	<hr/> 93

Visiting instructors from outside the Province included the following: Mr. Donald S. Blair, Seattle Public Schools; Dr. Samuel Burkhard, Arizona State College, Tempe; Dr. Raymond G. Carey, University of Denver, Denver; Mr. Lawrence R. Cluderay, Vancouver, B.C.; Miss Dorothy M. Grahame, University of Manitoba; Dr. Foster E. Grossnickle, State Teachers College, Jersey City, N.J.; Mrs. Zelma Hall, Spokane Public Schools; Mr. John A. Irving, University of Toronto (Victoria College); Miss Ethel M. King, Memorial University, St. Johns; Dr. Ronald S. Longley, Acadia University, Wolfville; Miss Agnes McClelland, University of California, Berkeley; Miss Jean McEwen, University of British Columbia; Mr. Stanley R. Mealing, Carleton College, Ottawa; Mrs. Ethel G. Metzger, Spokane Public Schools; Dr. Edmund Morrison, University of British Columbia; Miss Mariam Norton, Provincial Normal School, Winnipeg; Dr. Donald F. Putnam, University of Toronto; Miss Carlene Rose, Fresno State College; Dr. Edro I. Signori, University of British Columbia; Dr. Robert R. Wark, Harvard University; Mr. Robert D. Williams, Olympic College, Bremerton Public Schools.

No serious adverse criticisms were received about the work of any of the visiting instructors. On the other hand, excellent reports were received about several of them.

During the past year the Department of Education has been able to effect a modification in the regulations governing the terms under which members of its staff may accept appointments to the teaching staff of the Summer Session. Under the revised regulations teaching in the Summer Session is now considerably more attractive to Departmental personnel. It will be noted that four members of the Department of Education staff taught in the 1954 Summer Session.

Courses

It was originally planned to offer seventy-five courses in the Summer Session. Later, four additional courses were provided to meet the needs of the students who were registered in the Emergency Teacher Training Program. Eventually three courses of the regular Summer Session had to be withdrawn because of insufficient registrations. Of the seventy-six courses which were actually offered, seventy-three were full courses and three were half courses, the latter all occurring in the Emergency Teacher Training Program. Twenty-nine of the courses offered had laboratory requirements which varied from five to fifteen hours per week. Industrial Arts courses were again taught in Edmonton at Victoria Composite High School by members of the staff of that school. No Summer Session courses were offered in Calgary.

Size of Summer Session Classes

Except in the cases of courses where specialized equipment needed for teaching was available only in limited quantities, no attempt was made to place registration quotas on Summer Session classes. As a general rule, as the number of students registered in a course became too great for one instructor to handle efficiently, one or more additional sections were formed, and additional instructors were appointed. Thus, in general, no artificial barriers were placed in the way of students' registering in the courses of their choice, while at the same time, instructors were protected against having exceptionally heavy classes.

The following table shows the distribution of Summer Session classes according to size:

<i>Size of Class or Section</i>	<i>Frequency</i>
10 students or less	12
11 to 40 students	44
41 to 60 students	30
61 to 80 students	10
81 to 100 students	0
101 to 120 students	1
121 to 140 students	1
Total	98

It will be noticed that fifty-six classes enrolled fewer than forty students each. There were forty classes which drew from forty-one to eighty students each. Two or three of the classes falling in this category might have been sectioned to advantage, but in none of these was a serious hardship imposed on either students or instructor. This leaves only two classes, Philosophy 51 (registration 106) and Horticulture 51 (registration 133) which definitely should have been reduced in size by sectioning. In both cases the difficulty of securing suitable additional instructors made sectioning inadvisable. The instructors of these large classes were given generous assistance in the form of readers and markers and field demonstrators.

The above table suggests, but does not show too clearly, that a fairly large number of Summer Session classes were relatively small. In twelve classes ten or fewer than ten students were enrolled. All told, there were forty-eight classes, or about 50% of the total, in which there were fewer than thirty students.

Experience seems to show that with the present scales of instructional fees and instructors' honoraria, the Summer Session can meet its direct costs on an average class load of thirty students per instructor. In the 1954 Summer Session the average class load was 33.6 students as against 32.5 in 1953.

Special Events Program

That part of the Special Events Program which was directly sponsored by the Summer Session consisted of two musical programs and three lectures, the latter being given by visiting Summer Session instructors. Miss Doreen Stanton and Mr. Donald Brown, both of Edmonton, opened the series with a very fine piano and song recital. The first lecture was given by Dr. Samuel Burkhard whose topic was "The Great Experiment". "Nova Scotia's Historic Valley" was the topic chosen by Dr. Ronald S. Longley whose illustrated lecture was the second in the series. Dr. Edro Signori, speaking on "Drug Addiction in British Columbia" concluded the series of three lectures. The Choral Recital, presented by the combined music classes of the Summer Session under the direction of Mrs. G. C. Higgin and Mr. Raphael Lopatka, brought the Special Events program to a close. Two Summer Session students, Miss June Warkentin and Mr. Clarence Prochnau, appeared on this program as soloists. Attendance at the Special Events Programs was slightly better than last year.

The Rutherford Library sponsored a series of five weekly recorded programs of music and plays which were presented in the Music Listening

Room. Approximately forty-five persons were present for each of these programs, a marked increase from the year before.

During the course of the Summer Session students had an opportunity to attend six one-act plays produced by members of the Drama classes under the general direction of their instructors.

A special Sunday Service was held in Convocation Hall on July 25th, with the Reverend C. F. Johnston, Resident Chaplain at St. Stephen's College, as Minister in charge. Although the attendance was down a little from last year, a sufficiently large number of students attended the Service to warrant its continuance.

Routine of the Summer Session

The "Get-Acquainted" Tea for the staff of the Summer Session and their wives took the form of a delightful garden party given by President and Mrs. Stewart. The staff meeting held on the evening of the second day of lectures was well attended and served a useful purpose. Weekly memoranda were sent to all instructors and administrative officers to keep them informed of Summer Session activities and procedures. Towards the end of the Session instructors were asked to make suggestions for the improvement of future Summer Sessions. Very few reports were received. The suggestions contained in them have been forwarded to the appropriate University authorities.

Registration procedures on the first day of the Session were well organized and permitted students to complete their registrations without undue delay.

The following officials whose duties brought them into immediate contact with Summer Session students were on duty during the Session: Provost and Warden of Assiniboia Hall, Mr. A. A. Ryan; Acting Dean of Women and Warden of Pembina Hall, Miss Eunice Robertson; Warden of Athabasca Hall, Miss Muriel Caldwell.

Brief reports were received from these officers. Copies of these reports are on file in the offices of the Director of the Summer Session and of the President.

The Edmonton Journal gave the Summer Session excellent publicity.

Student Affairs

The general meeting of the Students' Union called early in the Summer Session, drew a total attendance of about thirty students. In addition to electing a slate of officers, the principal business transacted at this meeting was the approval of a change in the constitution of the Summer Session Students' Union, the effect of which will be that only one general meeting of students will have to be called henceforth during the Summer Session. The student body will still retain the right to call additional general meetings by petition.

No resolutions directed to the University were passed either at the general meeting or by the Students' Council. However, the Council did decide to make further representations to the President with respect to the appointment of an Advisor on Recreation.

Concomitant Activities

The following activities, although not directly sponsored by the Summer Session, were given official encouragement and administrative assistance:

Civil Defence Courses: Sponsored by the Provincial Civil Defence Organization, these courses were given between the hours of 3:00 and 5:00

p.m., when most Summer Session students, except those in laboratories, were free. Approximately 200 teachers registered for these courses and about 120 completed them successfully.

Tuberculin Skin Testing Program: Approximately 850 Summer Session students were given the Tuberculin Skin Test in a testing program organized by Dr. G. R. Davison, Director of the Division of Tuberculosis Control, Department of Health. Those who reacted positively to the test were later given a chest X-ray. Apparently no cases of active tuberculosis were discovered among those tested.

Report of Dr. Osman J. Walker, Director of the School of Graduate Studies

The School of Graduate Studies has held seven regular meetings during the year, each one running for about two hours, in order to dispose of the business coming to its attention. The highlight of the year was the establishment of the degree of Doctor of Letters, D. Litt. The regulations for this degree are similar to those for the D.Sc. degree. Some attention has also been given to the fee structure for the Ph.D. degree and in this regard the recommendations have been accepted by the Board of Governors.

Registration

During the year there has been a net increase in registration of 40. Half of this increase comes from students working for degrees. Part of the increase of special graduate students comes from registrations in the Evening Division and part from graduates completing prerequisites for entrance into Medicine. The total registration for the academic year amounted to 313 made up of 95 in the Summer Session and 218 in the Regular Session. After allowing for 24 registered in both Sessions it can be seen that the net registration was 289. Twenty-four women were registered in the Winter Session. The distribution of students according to Session and degrees sought was as follows:

	Regular Session	Summer Session	Total	Duplicates	Total less Duplicates
Master of Arts	33	6	39	1	38
Master of Education ..	51	72	123	21	102
Master of Science	65	1	66	0	66
Doctor of Philosophy..	13	1	14	1	13
	-----	-----	-----	-----	-----
Working for Degrees..	162	80	242	23	219
Special Students	56	15	71	1	70
	-----	-----	-----	-----	-----
Total	218	95	313	24	289

It will be noted that most of the students in the Summer Session are working for the M.Ed. degree. During the Regular Session, candidates were proceeding to advanced degrees in 26 departments or divisions as follows:

Animal Science	3	Educational Psychology	8
Bacteriology	1	Electrical Engineering	2
Biochemistry	1	Elementary Education	7
Botany	1	English	5
Chem. & Pet. Engineering	8	Geology	7
Chemistry	5	History	10
Civil Engineering	11	Mathematics	2

Medicine & Internal Med.	1	Political Economy	4
Modern Languages	2	Secondary Education	36
Pharmacy	3	Soil Science	3
Philosophy & Psychology	13	Surgery	1
Physics	10	Zoology	3
Physiology	1		
Plant Science	14		<hr/> 162

Recommendations for Degrees

The Degrees awarded at the October 1954 and May 1955 Convocations were made up of: M.A., 9; M.Ed., 13; M.Sc., 25; Ph.D., 5. Total 52.

This represents a marked increase over those granted in 1953-54 especially for the M.A. and M.Ed. degrees. The time limit imposed by the School has undoubtedly had some effect on inducing students who have been working on a program for some years to complete the requirements for their degrees.

Scholarships and Fellowships

As in preceding years there were not enough applicants to award all of the Fellowships and Scholarships available. It is hoped that candidates will come forward for those deferred before the Session opens in September.

Report of the Librarian, Miss Marjorie Sherlock

Use of the Library

In the three libraries of the University—the Rutherford and Education libraries in Edmonton and the Library of the Calgary Branch—activity continued on an even higher level than last year, with a *total circulation* of 207,101 as compared with 176,068 for 1953-54, and a *total attendance* of 412,198 as compared with 340,360 for 1953-54.

Most of the reading rooms are open shelf reading rooms, so that the actual use made of the books is many times greater than that shown in the recorded circulation figure. The figures leave no doubt that the students are now making full use of the library, as has been indicated all year by the well-filled reading rooms, and the increased use of the stacks and Browsing area.

Summer Session 1954

The use made of the Rutherford and Education libraries was the heaviest on record—showing an increase of 31% over that of 1953. The Reserve Reading Room and the Browsing Area were again kept open in the evenings. The further increase in the use of the Browsing Area emphasizes the students' interest in good current reading of a general nature, apart from books required for their courses.

The Music Listening Room was open on five Thursday evenings from 7:30 - 9:30, when the programs consisted of recordings of the following plays: Benet, John Brown's Body; Shaw, Don Juan in Hell; T. S. Eliot, Murder in the Cathedral; Shakespeare, Hamlet; Fry, The Lady's not for burning. Three supplementary programs were given for students of the Shakespeare course when Othello and Macbeth were played. All these programs proved very popular and were well attended.

Increased hours of opening and stack service

Beginning in October 1954 all areas of the Rutherford Library remained open during the supper hour, giving continuous service from 9 a.m. to 10

p.m. Monday through Friday. Stack service from the Main Circulation Desk and access to the stacks for stack permit-holders, was also given continuously during these hours.

Hitherto stack permits had been issued only to Graduate and 3rd and 4th year Honors students. This year Arts and Science students and B.Ed. students in their final year were made eligible.

These changes resulted in an increase of 28% in circulation from the Main Desk and 113% increase in the use of the stacks. The study carrells in the stacks were used to capacity for the first time. There was general appreciation of the longer hours for stack-users, and of the evening service for students of the Evening Classes. Library facilities were also provided for the Evening Classes in Lethbridge and Medicine Hat by arrangements with the public libraries in those cities to circulate our books to students.

Use of the Library by outside readers

In addition to the loan service given to Government officials, research and technical workers, and medical doctors, the general public is using the Library for reference to a surprising degree with a resultant heavy load on staff time and facilities.

This use is increasing steadily, and now constitutes a significant part of our service, particularly in the Reference, Medical, and Applied Science Reading Rooms.

Photostatting Service

In October a Photostatting unit was presented to the Library by the College of Physicians and Surgeons of Alberta. This now enables us to send copies of journal articles to medical and research men in the province, without the necessity of sending valuable bound journals through the mails. All photostats are provided at cost, which includes materials and the operator's time, but not the reference time of the Library staff. This machine has already proved its value, both for out-of-town requests, and for copies of material required by individuals and departments on the Campus, particularly the Alberta Research Council.

Library Committee and Library Sub-Committee

The Library Committee met three times during the year and the Library Sub-Committee four times. With their approval a new method of selecting current journals was approved and put into effect. In April each year forms will be sent to each teaching Department asking for their recommendations regarding new journals. A complete list of journals requested is then circulated to all departments for comments on their value and probable use. In the light of these comments the Library Sub-Committee makes the selection of new journals in September for the coming year, subject to final approval by the Main Library Committee.

During the year a complete survey was made of the book-needs of the various teaching departments, and a revision of departmental book appropriations was made, based on the number and type of courses given by a department, the number of faculty and graduate students, the cost of books, dependence on the library, and other similar factors.

Reclassification

The work of reclassifying the main book collection according to the Library of Congress Scheme, which was authorized by the Board of Governors

in April 1952, has been going steadily forward, although slowed down by an unusually large number of staff changes during the year. In last year's report it was noted that the Medical and Applied Science Reading Rooms had been totally reclassified. This year we moved into the Main stacks. As the Language and Literature on Tier 6 were the most confused sections of the old classification scheme, work was begun there and completed in March 1955. Work is now proceeding on Tier 4, where the Science and Political Science books are housed.

Staff

The Library during the past year has had a full-time staff of 33, of whom 16 are qualified librarians. In addition, a professional cataloguer and a typist are employed during the period of reclassification.

On July 1, 1954 Mr. Bruce Peel, MA (Sask.) BLS (Tor.) was appointed Assistant Librarian. Mr. Peel has been Chief Cataloguer since 1951, and prior to that had been Librarian of the Shortt Library at the University of Saskatchewan.

Miss Caroline Hicks, BA, BLS (McGill) succeeded him as Chief Cataloguer. Miss Phyllis Russell, who had been a member of the Library staff since 1950 resigned in July 1954 and was replaced by Miss Bonney White, BA, BLS (Toronto).

Student Assistants

During the year 76 students were employed for varying periods weekly—6 in Calgary, 12 in the Cataloguing Department and the remainder at the Main Circulation Desk, in the stacks and in the various reading rooms, assisting at the charging desks, or shelving books.

Stock of Books

During the year, 9,490 new volumes were catalogued for the collection. 437 worn or outdated volumes were withdrawn from the collection, giving a total of 157,250 accessioned volumes in the collection as of March 31, 1955.

It should be noted that much other material was added which is not included in the above figures, including numerous long runs of back journals not yet accessioned, 4,889 maps and 7,800 documents processed this year, and considerable material in microfilm form.

Departments

Order Department—The Order Department is responsible for the ordering of all books, supplies and equipment for the entire library system.

This year's volume of work is the largest on record with 6,673 volumes ordered and an additional 902 volumes received as gifts. 555 volumes of back periodicals, approved by the Library Sub-Committee were located and ordered, involving considerable checking of secondhand catalogues and other sources.

Buying from a special fund for the Woods Collection was undertaken on a large scale this Spring. All titles were checked for price, availability and duplication. By the end of April 350 titles had been ordered, with another 500 or 600 ready for ordering or to be sent out on search lists.

Cataloguing Department—The main theme in the Cataloguing Department during the past year was change: change in personnel, change in the type of books being reclassified; change in furniture and arrangement.

As noted above, Mr. Peel became Assistant Librarian in July and was replaced as Chief Cataloguer by Miss C. Hicks. Numerous other changes among the professional, clerical and student assistants made for constant readjustment of staff and work.

The department classified 500 more new titles this year than last year. With approximately 1,000 new titles being ordered for the Woods Collection and an anticipated further increase of 500 in new books ordered, the time spent by the classifiers on new books will have to increase to the detriment of the reclassification project. To date a total of 62,757 volumes have been reclassified.

This year's work included 8,987 volumes accessioned, 9,490 new volumes catalogued, 19,024 volumes reclassified, 27,789 volumes lettered, 437 volumes withdrawn and 71,029 cards typed.

Reference Department, Periodicals and Binding—This department provides general reference service for the staff and students, including inter-library loan service for the faculty. It is responsible for the microfilm and microcard equipment, maps, pamphlets and documents. It is also responsible for current periodicals and the binding of books and journals for the entire library. The Reference Reading Room, Periodical Room and Rare Book Room are under its supervision.

Statistics for 1954-55 show an increase in all areas of the Reference Department over those of last year. Attendance in the Reference Reading Room was 114,223 as compared with 86,525, an increase of 32%. Circulation of reference material increased by 14%, reference questions by 11%, and the circulation of current journals by 13%.

The organization of the documents and map collections has been going steadily forward. A total of 4,889 maps were processed this year—914 Canadian, 3,050 European, 750 American and 175 Alaskan—as compared with 2,600 last year. Owing to the extensive use now being made of the map collection, it has been necessary to set up a new map area in the Periodical Reading Room.

A new documents section is being set up on Tier 2 of the stacks, which when completed will provide improved facilities for staff and senior students in Economics and Political Science. The whole document collection has been rearranged and labelled for easy use. A total of 7,794 documents were processed this year as compared with 5,850 in 1953-54.

During the year, 1,623 current journal subscriptions were placed and 2,007 journals or books were bound or repaired.

General Circulation Department—This department is in charge of the Reserve Reading Room, The Main delivery desk and stacks, and the Browsing area on the 2nd floor with its special book collection. Its staff, consisting of two professional librarians, three non-professional graduates and a clerical assistant, employs a large number of student assistants for peak hours during the term, as desk pages and for shelving books and sending out recall notices.

The Circulation department continues to bear the brunt of the inconvenience caused by the Reclassification program and the temporary arrangement of the books under two systems. Between the beginning of May and the end of June all the books and bound journals on Tiers 4, 5, and 6 were shifted and rearranged in preparation for reclassification. With

Tier 6 (Language and Literature) completed, the most trying period of the work is finished.

Circulation during the year from the Reserve Room was 39,747; from the Stacks and Browsing area 34,827—a total of 76,165, an increase of 28% over 1953-54.

Attendance for the three areas totalled 20,586, an increase of more than 100% in the use of the stacks attributable to the institution of evening hours for study there.

Report of the Branch Libraries

Applied Science Reading Room—The use of this reading room jumped during the past year from 32,616 to 45,277, an increase of 35%. It is interesting to note that the attendance here during our first year in the Rutherford Library (1951-52) was 22,261—less than half of that of our fourth year (1954-55) in the building.

One of the reasons for this increase is the larger enrollment in the Faculty of Engineering, and the very greatly increased use made of the Library by the students of this Faculty. Considering that this reading room serves the Faculty of Agriculture and the Department of Chemistry in addition to the Faculty of Engineering, all of whom have heavy programs of lectures and laboratories, we feel that the growth in the use of the library is very significant.

The recorded circulation also showed an increase of 22% over that of last year. As this figure represents only material out on overnight loan, it gives no idea of the actual use made of the books and periodicals. Students are also making much greater use of the periodical indexes. Reference questions also increased from 894 in 1953-54 to 2,110. This is explained in part by the fact that the first and second year engineering students have been making far more use of the library than in former years.

Law Reading Room—The use of this reading room was up again this year with an increase of 18% in circulation. Since books in the reading room and adjoining stack room are freely accessible to students, this figure covers only the comparatively small part of their reading represented by the text-books and journals which circulate for over-night use.

Much care and thought have been given to the building-up of this collection during the past ten years by the Law faculty and the Library. The results are now in evidence in the increasing completeness of our resources.

Medical Reading Room—Attendance in this reading room, which provides service for the faculties of Medicine and Dentistry, and the Schools of Nursing, Pharmacy and Physiotherapy, shows an increase of 31% over that of last year. The most noticeable increase is in the evening attendance, indicating that the students are relying more and more upon the reading room as their place of study. Most of the books and current journals are now on open shelves. in the reading room fully accessible to readers, so that there are no statistics of their use in the Library. Circulation for home use was 16,844 as compared with 14,140 in 1953-54—an increase of 19%.

Talks given this year by the Medical Librarian included instruction to groups of first-year Medical, Dental and Pharmacy students, 3rd-year Pharmacy and Household Economics students, Public Health students in Nursing, and Physiotherapy students. These students were all shown how

to use the periodical indexes to secure journal material for their essays and reports.

During the year, 4,925 items were borrowed by doctors in the city and province, as compared with 3,976 last year. It is felt that the new photostatting service will take care of many of these borrowers, and the bound journals, formerly sent out on loan by mail, will remain in the library available for reference purposes.

Education Library—This is the one branch library on the Edmonton campus which is not housed in the Rutherford Library. It now occupies 2 floors in the Education Building. The increase in library use and the growth of the book collection now require the addition of a third floor to serve as stack room and graduate study area. This is made possible by the removal of the demonstration school to the new South Side Composite School, and the work is going forward to be in readiness for the Summer Session, 1955.

The Attendance figure of 38,205 for the past year showed an increase of 31% and the Circulation figure 51,264, an increase of 20%. Extra mural loans were double those of last year.

The Library was kept open on Monday and Thursday evenings throughout term for the benefit of the Evening Class students.

Again, for three weeks in May, the Canadian Education Association—Kellogg Foundation Project, held its workshop on educational administration in the Education Building. Seventy school administrators from across Canada were in attendance, and made extensive use of the library for reading and reference.

Calgary Branch—The expansion of the Calgary Branch of the University in 1951-52 resulted in an increase in space, equipment and staff for the library and was reorganized to cover the new fields of teaching in Arts and Science. Since then the work of building the book collection has continued steadily, with special emphasis on the Reference section in the purchase of the large fundamental reference works, and the filling in of gaps in back journals to serve both the faculties concerned. Now once again space is at a premium, and with the removal of the University Demonstration School we have hopes of gaining some much needed room to the Westward.

Like most of the other reading rooms this is an open-shelf library with the books directly accessible to readers. Circulation for home use showed an increase of 20% over last year's—from 14,620 to 17,494; with a very large increase in the use of pictures and pamphlets for practice teaching.

Instruction in the use of the Library was again given to students by the Branch Librarian—2 periods for the Arts and Science students and four for the Education students.

Acknowledgments

The Librarian gratefully acknowledges the assistance received from the Library Committee and the Library Sub-Committee, and from the various branch and departmental library committees, who have devoted much time and thought to library matters.

Report of the Provost, Professor A. A. Ryan

Student Activities

Student government on the campus has run smoothly and effectively this year, thanks in considerable measure to the unfailing courtesy and tact shown by Mr. Bob Edgar, President of the Students' Union, and other responsible student officials in their dealings with the student body, the administration and the general public.

There has in the past few years been a considerable amount of re-organizing of student government. Last year, for example, a completely revised Constitution and set of By-Laws for the Students' Union went into effect. The result is that student government is functioning on a sound basis, and Students' Council is able to devote more time to such perennial problems as the scheduling of the University's multifarious extracurricular activities, and the ensuring of continuity from year to year in planning of events.

The Scheduling Committee of the Students' Union has been reorganized to make its supervision of student activities much closer and more comprehensive. Beginning next year, all student organizations will be required to register with the Scheduling Committee at the beginning of their year's activities, and to schedule events through it. The need for such an arrangement is revealed by a recent survey which shows that during the past year, in addition to the numerous cultural, social and athletic clubs sponsored by the Students' Union, there were also active, thirteen faculty and school societies, several department clubs, nine religious organizations, twelve fraternities and two interfraternity organizations, four residence house committees, and several miscellaneous organizations such as the 4H Alumni Club, the Bluestocking Club, the Square Dance Club, and the World University Service.

The year has also been marked by the growth in importance of joint student-staff advisory committees to ensure that such yearly events as Varsity Guest Week-End and Freshman Introduction Week, for example, will have continuity from year to year and profit by the accumulation of experience. So successful was the work last year of a newly formed advisory committee on Freshman Introduction Week, that it was made a standing sub-committee of the Senate Committee on Student Affairs and will report yearly to it. Although the Golden Key Society, a group of senior students selected by Students' Council for their enthusiasm and ability as student leaders, is in charge of actual arrangements for Freshman Introduction Week, the Advisory Committee gives invaluable aid in advance planning and in recording the experience gained.

The year saw a full program of social, literary, musical, athletic and other activities, although the athletic program was curtailed because of damage caused to the roof structure of the Drill Hall by a storm late in the season. Outstanding among the year's special events was the successful revival of the student football parade on the occasion of the Calgary-Edmonton Football Game in October. Over one thousand students filled the special student section of the grandstand or took part in the excellent parade of floats at half-time. Another out-door event which aroused interest was a lively Frontier Day sponsored by the School of Physical Education. Such events as these help take the place of Intervarsity Football which the student body has reluctantly admitted to be not feasible at the present time.

Students' Union Building

A recent reorganization of the arrangements for supervising the Students' Union Building has been successful, and provides an example of the effectiveness with which the Students' Union can handle its own major business affairs. Until this year the building was supervised by a committee of four appointed by Students' Council. It is now in charge of a House Committee made up of the President of the Students' Union, the Permanent Secretary-Accountant of the Students' Union as business manager of the building, and the Chairman of a six member student supervisory staff hired by the House Committee and directly responsible to it. The new arrangements have resulted in a marked tightening of supervision, a necessary improvement since the building is more used with the passage of each year.

Student Residences

With the residences filled each fall by a new influx of freshmen, the number of upper classmen has been reduced to a skeleton of about thirty in each residence. These upper classmen cooperate with the House Committee and the Wardens in guiding the new students, many of whom are immature and most of whom have no developed study habits. During the past year the House Committees have also sponsored an exceptionally entertaining series of events, beginning with a "Talent Night" early in the fall term.

Discipline

Thanks to the generally mature and cooperative attitude of the senior students on the campus, the year has passed with few behavior problems. After some years of inactivity the Disciplinary Committee of the Students' Union was called upon to deal with two complaints laid before it. As a result, Students' Council has opened an investigation into the functioning of this student court, with the aim of increasing its popularity and effectiveness.

Report of the Dean of Women, Miss Maimie S. Simpson

Interviews

1. Pre-Session—On Saturdays and during Easter vacation a number of girls in grade XII came to discuss university entrance. In most cases after the interview they were directed to Student Advisory Services, and in one or two special cases where, for example, the girl was planning an honors' course, to the Dean of Arts and Science and to the Head of the Department concerned.

2. At the opening of the Session.

(a) Financial assistance

(i) once again—in private homes to work for room and board;

(ii) babysitting (with regularity);

(iii) student assistants in the Library.

(b) Helping a number of girls to find suitable accommodation.

3. During the Term.

(a) A chance to discuss change of courses or to go on to further study upon graduation. Referred to Student Advisory Services or to the Dean of the Faculty.

(b) Course difficulties following results of term tests.

(c) A few emotional difficulties but none serious. A chat to talk over the difficulty with an older person was all that was needed in each case.

Extracurricular Activities

1. A number of dances, both formal and informal were attended upon invitation from the students.

2. The Coffee Hour for first-year girls, twenty at a time, until the entire group of Freshettes was covered still proved to be a most satisfactory way for the girls to get to know the Dean of Women better.

Such groups as the Men's and Women's House Committees, Macleod Club Executive, Graduating Class Committee, etc., were entertained when plans for social functions were being planned.

Women graduands in Honors in the Arts and Science Faculty, in Medicine, Dentistry, Law, and Pharmacy were entertained at tea.

To the Wauneita Society special attention was given for so frequently the members were called upon to be hostesses. To Miss Margaret Falk, the President, and her excellent executive we are most grateful for their willing assistance.

As in past years the monthly meetings of the Panhellenic Society were attended (in an advisory capacity) upon the request of the Fraternity women.

This year Mrs. R. S. Eaton accompanied the University Mixed Chorus on its trip to Calgary and Mrs. Harry Scargill will chaperone the group on its Northern Tour commencing May 1st.

The Infirmary

A visiting committee of two Pembinites assisted the Dean of Women during the year to visit the women students confined to the infirmary and in a few cases to the University Hospital.

Lectures

Dr. Ross Vant again gave his three-lecture series to the First-Year Women. These lectures are most helpful as shown, in part at least, by the number who attend, an average of over three hundred at each lecture.

Public Relations

Two broadcasts were given over CKUA and nine addresses were given to overtown organizations including the Women's Canadian Club and the Engineers' Wives' Club.

Report of Dr. A. J. Cook, Director of Student Advisory Services

The Prospective Student

The services to the prospective university student have been maintained and developed:

Arrangements were made to distribute sets of faculty calendars to High Schools, these in addition to the composite calendar.

The load of counselling during the university recess is equal to that of the session. This is shown in the records of the past two years.

The usual circuits of school visits and career days have been carried out on the invitation of the Guidance Branch of the Department of Education. Fifty different High Schools were visited outside of Edmonton and Calgary.

Often these Schools had arranged to have smaller high school groups meet with them.

A series of descriptive outlines for a number of the Departments in the Faculty of Arts and Science, called "Professional Outlines" have been prepared by these departments and have been distributed to the high schools.

A broadcast series, "The University—Your Opportunity" consisting of five broadcasts, with an additional broadcast concerning the Calgary Branch was given over the University and Calgary Stations during March and April.

The Committee on Freshman Introduction Week put into effect plans which greatly improved the arrangements for the reception of Freshmen.

Arrangements were devised to send to all High Schools the lists of students from these Schools who entered the University. These arrangements also made it possible to prepare a provincial map of new-student admissions which can be expected to prove useful in various ways. Also, the Student Employment Office made use of the data to invite freshmen to register for summer employment, with a very fine response.

The second annual conference of High School Counsellors (Junior and Senior High Schools) was held in Red Deer during Easter Week. This Conference was attended by Miss Wilson in 1954 and by the Director in 1955.

Deserving Students with Financial Need

During the past four years the University has publicized the fact that no deserving student should be denied university education because of financial need. The question naturally arises: Are there deserving students who are being denied the opportunity of university education? To answer this question adequately, a study would need to be made, and would be profitable. However, since prospective students are invited in the bulletin for prospective students to consult the Director about financial matters, and since students do come in for discussion during their undergraduate years, it can be said that **no** deserving student to our knowledge has been denied the help necessary to continue his studies.

Transition from High School to University

First year data show clearly that the transition is most difficult in the courses in the physical sciences (Engineering and B.Sc. (Arts and Science in the physical sciences)). As a result, recommendations have been made by the University to require further mathematics for students in Engineering.

Matters of first year student orientation need further attention; this department is actively concerned. The study tutorial plan was curtailed last session, but tutorials were held in the first term, and it is hoped to develop this practice.

The Director was granted first term leave for the session 1954-55 and visited a variety of colleges and universities in the Pacific coast region, to observe practices in Student Services. A special report is being prepared.

During his absence, Miss L. Wilson was Acting Director and Miss Rita Hrynyk served capably in a part-time capacity as Miss Wilson's assistant. This arrangement was made possible by the Director of the Alcoholism Foundation of Alberta, where Miss Hrynyk is a counsellor. Miss Wilson has since been granted leave of absence for a year from September 1, 1955 to continue graduate studies at the University of Minnesota. She has been

promoted to the rank of Assistant Professor and is now Assistant Director of Advisory Services.

Arrangements were made to have the University of Alberta join an association of Western American Universities for the purpose of working together in the student personnel field. The Director attended the annual meeting of this association, the Western Personnel Institute, held in Pasadena in October, 1954.

The Director visited the Calgary Branch in October 1954. The Counsellor there, Dr. J. G. Woodsworth, attended a meeting of the Department and its Advisory Committee in March of this year.

Report of Dr. John W. Scott, Director of Student Medical Services

The activities of the Student Medical Services is centred largely in the University Infirmary. The twelve beds available in this unit for inpatients have been fully occupied during most of the session. The outpatient activities have shown a marked increase over the past few years taxing the available facilities of a temporary building. The infirmary services have been very effectively carried out by Dr. J. F. Elliott, Dr. M. M. Cantor and Dr. J. C. Edwards as medical staff. Miss A. Revell has, with the members of her nursing staff, very efficiently and faithfully provided nursing services at both inpatient and outpatient levels.

The consultant services of Dr. S. Spaner as Psychiatrist deserve special mention. Many adjustment problems arise in some of our students. The advice of Dr. Spaner and his sympathetic and competent understanding have been of the greatest help. An attempt is made to keep a close liaison with the Student Advisory Service in all matters that concern the health of students.

The incoming freshman class in the 1954-55 session were given a complete physical examination.

Dr. Elliott has continued the B.C.G. immunization problem with medical students and B.Sc. nurses.

All students with major illness have been cared for in the University Hospital. The increasing cost of this service has made it necessary to request the Board of Governors to increase the Student Medical Service fee.

We have learned with regret that Dr. P. S. Warren is retiring as Chairman of the Committee on Student Medical Services. Dr. Warren over many years has guided our activities with a keen interest and an efficient administrative capacity.

Report of Radio Secretary, Miss Margery W. Mackenzie

During the past season members of the faculty have broadcast 190 separate programs in the course of the presentation of 12 regular radio series. These series have dealt with art, music, drama, science, literature, educational studies, extension activities, and current affairs. Two new series were introduced to the listeners—*The Bookshelf*, a companion series to *Great Literature* which has met with such favor since its introduction two seasons ago, and *I Don't Agree!*, a semi-impromptu discussion series by several members of the faculty on various questions of current interest.

The Faculty of Education series marked this Golden Jubilee year with the presentation of a group of programs entitled "Fifty Years in Education" which paid tribute to pioneer educators in Alberta. The series *Your University*

reduced its scope to include two introductory programs in October and a five-program series in March—"Your Opportunity—the University", directed towards senior high school students and their parents.

The twelve series mentioned above were presented between the middle of October and the end of March. Broadcast throughout the entire year are two music programs, the *Music Hour* and *Saturday Evening Concert*. The *Music Hour* which continues to hold a large appreciative audience in an hour-long evening program presented five times a week. *Saturday Evening Concert*, now being broadcast for its second year, seems to be partially filling the need for programs of good music on Saturday evenings.

The student Radio Society has enjoyed another enthusiastic season and has broadcast several regular series on Thursday evenings—*Campus Report*, *My Country*, and *Talent from the Campus*, as well as a number of special events. Its major achievement of the year has been the installation in the Students' Union Building of complete broadcasting equipment, much of which was designed and constructed by a member of the Society. In the future most student broadcasts will be made from the Students' Union Building.

All of the 190 radio talks or discussions by faculty members were produced in the campus studios with the assistance of the Program Producer and all but one of them were recorded in advance for the convenience of the broadcaster. They were all broadcast from the campus studios and two student assistants handled the operation of controls and the announcing.

Printed program schedules, "The University of Alberta—On the Air", are distributed to interested listeners, every month during the winter and every two months during the summer.

A special undertaking of the staff of Radio Service this past year has been the forwarding of some 52 recorded programs for rebroadcast to the three northern radio stations of Whitehorse, Fort Nelson and Dawson City. In addition, a dozen programs have been accepted for rebroadcast by CHAT in Medicine Hat. It is hoped that this type of service may be expanded so that the talks and discussions prepared and presented by members of the faculty may reach an increasingly large listening audience.

Report of Professor R. S. Eaton of the Western Board of Music in Alberta
Statistics (Candidates and Fees)

Candidates	Feb.	May	June	Total	Fees	
Practical	114		936	1050	\$ 968.05	(February)
Theoretical	280	339		619	4626.70	(May, June)
				<hr/> 1669	<hr/> 5594.75	

This shows an increase of 39 candidates and a decrease of \$20.50. The slight decrease in revenue is accounted for by a slight decrease in senior grades.

Revenue from the sale of theory papers (Dec. 1, 1953 to Nov. 30, 1954) —\$34.34. This shows an increase of \$12.46 over a similar period last year.

Centres

(a) Practical:

February, 1954: Edmonton, Calgary, Red Deer, Banff, Bowden, Forestburg and Innisfail.

June, 1954: *Acme, Banff, Blairmore, Bonnyville, Bowden, Calgary, Camrose, Chauvin, Dawson Creek, Edmonton, Falher, Fort Kent, Girouxville, Glendon, Grande Prairie, Hythe, Innisfail, Lethbridge, McLennan, Peace River, Pincher Creek, Red Deer, Rycroft, St. Paul, Spirit River, Sundre, Wetaskiwin.* (N.B. Italicized centres were new in 1954).

(b) Theoretical:

February, 1954: 28 centres.

May, 1954: 36 centres.

Examiners for Practical Examinations

Mr. Graham Steed, Victoria; Mrs. D. S. Hare, Calgary; Mr. Douglas Millson, Edmonton; Mr. Ross Pratt, London, England; Mr. Ronald Gibson, Winnipeg; Mr. Howard Leyton-Brown, Regina; Mrs. Beulah Doney, Edmonton; Miss Lillian Kester, Edmonton; Mr. Keith Bissell, Edmonton; Mrs. Dorothie Langmo, Edmonton; Mr. Leonard Leacock, Calgary; Mr. Arthur Crighton, Edmonton; Mr. Grant Sampson, Edmonton.

Diplomas Granted

Spring Convocation: A.Mus.: Gordon Kay Greene, Evelyn Henricks.

Fall Convocation: L.Mus.: Sylvia Marilyn Webb; A.Mus.: Marjory Frances Brown, Mary Lou Dawes, Eleanor Lillian Kerr, Kenneth Perkins.

Broadcasting

Once again local teachers have agreed to assist with the programs illustrating pieces from the syllabus and we were pleased to present the following well-known Edmonton teachers and musicians: Miss Doreen Stanton, Miss Lillian Kester, Mrs. B. Doney, Miss Rosemary Holsworth, Miss Marilyn Webb, Mr. Edgar Williams, Miss Marguerite Jacobs, Mrs. Ruth New and Mr. Arthur Crighton. There was one program devoted to recorded organ music.

Recitals

During October and November, 1954, regional recitals and presentations of awards were held in six centres and young visiting artists again contributed much to the programs. Centres in which recitals were presented were: Edmonton, Calgary, Lethbridge, Red Deer, St. Paul and Rycroft. The guest artists were: Miss Joan Taylor of Calgary, Miss Mary Lou Dawes of Midnapore and Miss Ellen Smith, Miss Lois Dean, Miss Marilyn Webb, Mrs. Joan Pecover and Mr. Mark Jablonski of Edmonton.

Scholarships, Bursaries and Prizes

In 1954, awards totalling about \$5,000.00 were made to outstanding students. The Government of Alberta again contributed \$1,000.00 in the form of ten bursaries. One gold medal and thirty-eight silver medals were awarded.

In addition to their annual book prizes, the National Music Company gave two \$50.00 bursaries for students of singing (or pianoforte) and strings, and the Dawson Music Shoppe of Dawson Creek, B.C. gave a bursary of \$20.00 for a student in Dawson Creek, B.C.

Advisory Services

These services are being continued and the extra time devoted to this work seems to be appreciated, particularly by the rural teachers.

**Report of Lt. Col. D. E. Smith, Officer Commanding, University of
Alberta Contingent, Canadian Officers Training Corps**

During this academic year the officers of the Contingent were Lt. Col. Douglas E. Smith, Major G. W. Reed, Major A. T. Elder, Captain W. C. Wonders, Lt. L. B. Keith, and the Resident Staff Officer, Major R. C. W. Hooper, CD. The Honorary Colonel of the Contingent was Col. H. A. Dyde, OBE, MC, QC.

Lt. Col. Douglas E. Smith, head of the Department of Philosophy and Psychology, was appointed Officer Commanding the Contingent on July 1, 1954. Also appointed to the Contingent were Captain W. C. Wonders and Lieutenant L. B. Keith.

During the summer of 1954, 94 Second Lieutenants and Officer Cadets took their practical training course. Two members of the Contingent trained in Germany with the 1st Canadian Infantry Brigade. (Six Second Lieutenants and Officer Cadets will be training in Germany in 1955). Of those training in Canada in 1954, Second Lieutenant John Chappel won the "Worthington Sword" as the best all round cadet at the Royal Canadian Armoured Corps School. Officer Cadet W. E. R. Zahar was the winner of the best first year cadet award at the Royal Canadian School of Artillery (Anti-Aircraft).

The 1954-55 session continued to show an increase in enrolment; 32 first year cadets were enrolled during this period. In addition 10 Officer Cadets were enrolled under the Regular Officer Training Plan and took their training with this Contingent. The actual number of Cadets taking part in the theoretical training given during the winter of 1954-55 was 42 first year, 41 second year, and 13 third year. Two third year dental students were given short-service commissions and will be subsidized through their third and fourth years of dentistry.

The Contingent participated in a number of University activities such as the Varsity Night parade at the football game, the Remembrance Day service, and the Varsity Guest Weekend. In cooperation with the other two services, a band concert by the RCAF Tactical Command Band was presented on Nov. 15, 1954.

On the 14th of February, a team of speakers consisting of Col. P. S. Cooper, Lt. Col. J. S. Ussher, Lt. Col. J. B. Clements, Lt. Col. R. J. Carson and Lt. Col. I. H. Deyman, visited the university to address the graduating engineers on the career possibilities in the Canadian Army.

The first year cadets received a course of lectures in the subjects "Introduction to the Army" and "Current Affairs". The second year cadets were given courses in "Organization and Administration" and "Tactics". The Tactics course was conducted by means of practical problems on a landscape model. This was well received by the cadets. Subjects taken by the third year cadets included "Military History" by Dr. P. S. Warren and "Military Geography" by Captain W. C. Wonders. Major A. T. Elder conducted a short course in "Leadership and Man Management", to introduce these officers to some of the problems with which they will be confronted during their practical training this summer. A "Current Affairs" discussion period for all cadets was carried out each month.

While the lectures on the courses mentioned above were mainly given by Contingent Officers, the following members of the University staff and the Staff of HQ Western Command assisted in the conduct of this training programme: Dr. C. R. Amies, Dr. E. J. Weber, Mr. G. F. MacDowell, Dr.

H. B. Mayo, Mr. Alex Smith, Dr. F. D. Blackley, Col. J. S. McCannel, MD., Lt. Col. T. Cole and Capt. B. J. Small. Considerable use was made of films provided by HQ Western Command in conducting these courses.

An increasing number of students who would be unable to continue their university education owing to lack of funds are being assisted by the benefits received from the Regular Officers Training Plan.

While the primary function of the Contingent is to provide well trained officers who can take their place in the Regular Army or Militia either in peace or war, the overall training programme constitutes a real contribution to the education of our students. The training and experience received in man management and leadership is valuable in any profession or in any participation of the citizen in the affairs of the community or state.

Report of W/C L. E. Gads, Commanding Officer of University Squadron, R.C.A.F.

Fifty Flight Cadets and Pilot Officers returned to the University of Alberta Squadron during September 1954. They had received training in Aircrew technical and non technical branches of the R.C.A.F. during the summer. W/C L. E. Gads, S/L A. R. McAlpine, and F/O A. B. Weston also returned to the University from the Reserve Officers School at Royal Military College, Kingston, where they had been employed on the instructional staff.

The summer of 1954 completed the training of 13 members of the Squadron who were subsequently transferred to the R.C.A.F. Supplementary Reserve. These officers now form a part of the trained reserve and are eligible for enrolment into the R.C.A.F. Regular or Auxiliary. Squadron and others have applied for an additional summer of employment with the R.C.A.F. Regular.

During the Summer of 1954 recruiting for the Regular Officer Training Plan was accelerated so that the number enrolled far exceeded that which could be accepted by the Canadian Service Colleges. The result was that 13 first year ROTP students were subsidized by the RCAF for University training at U of A. Additionally two more first year ROTP candidates were selected during the winter. During the winter months 14 students were enrolled in the University Reserve Training Plan giving a total first year intake of 29.

The training programme for the Reserve University Squadron consisted of lectures and liaison visits. A good attendance and enthusiastic interest was maintained throughout the 64 hours of training. The lecture programme included speakers from the Squadron Staff, University Staff, Tactical Air Command Headquarters, R.C.A.F. Stn., Edmonton, and from the Central Experimental and Proving Establishment Climatic Detachment at Namao. The liaison visits included conducted tours of such establishments as the R.C.A.F. Survival Training School, the Edmonton Civil Defense Communication Centre, and the new large (18 acres) Supply Depot Building at Namao.

The Cadet Lounge which had previously been on a bi-service basis with the Army and R.C.A.F. became a Tri-Service Mess including Naval Cadets. The lounge was used extensively by the members of the three services for social and study purposes. Other events included the Remembrance Day Ceremony, participation in the Varsity Football parade, Band Concert, and "at home" on varsity guest week-end, and the highlight social event being the Tri-Service Ball held at HMCS Nonsuch.

Ten members of the Squadron will be graduating from the University this year. Two of these are ROTP and will therefore continue as Regular RCAF Officers. Of the remaining eight URTP two are female officers, one has applied for a permanent career in the RCAF and the other five will begin a civilian career and be transferred to the Supplementary Reserve.

The total strength of the squadron is presently 73 officers and cadets. 64 cadets will receive summer training in 1955 at RCAF units throughout Canada and Europe. W/C L. E. Gads will be employed on training duties at the Reserve Officers School at Kingston following a one month liaison visit to RCAF Stations and Universities in Western Europe. S/L A. R. McAlpine, the Resident Staff Officer, is transferred to RCAF Station Claresholm to assume the duties of Chief Ground Instructor at the Flying Training School. S/L B. E. Riedel and F/O A. B. Weston have been posted to the RCAF Reserve Officers School at Royal Military College, Kingston, for instructional duties.

Report of Lt. Comdr. (L) R. E. Phillips, Commanding Officer of the University Naval Training Division

Twenty-eight cadets completed Summer Training at Esquimalt, Halifax and Trenton in October 1954.

Two cadets were selected and took part in a Combined Operations Scheme with American cadets in June 1954.

Lieut. (P) H. L. Frost R.C.N., replaced Lieut. Cdr. (P) R. F. Lavack, R.C.N., as Resident Staff Officer. Training officers were Lieut. R. Shea, Sub. Lt. T. Millman and Sub. Lt. (S) R. Harle. These three officers were University students and responsible for the whole training program. The Commanding Officer was Lieut. Cdr. (L) R. E. Phillips.

Eighteen students were recruited as Probationary Cadets in the fall of 1954 and nine of these were successful in passing the Selection Board in January 1955. Four ROTP cadets were attending this University after having been recruited during the summer by Travelling Selection Boards.

In addition to regular weekly parades were a few special events such as the Remembrance Day Parade and Service, the Tri-Service Ball, attendance at the Mixed Chorus, the Annual Inspection by the Commanding Officer of Naval Divisions and the Annual Mess Dinner.

The three Services set up a University Tri-Service Mess and Mess Committee for the organization and administration of the 'Tri-Services' Lounge in the University Gymnasium. The chairman of the committee this year was Chief Cadet Captain J. Edwards, R.C.N. (R).

The above committee instituted an annual award to go to the most outstanding cadet of the three services and to be awarded at Color Night. The award was made this year to Cadet Captain J. Edwards, R.C.N. (R).

The present strength of the Division is as follows: First year: 13 cadets; Second year: 11 cadets and Third year: 4 cadets.

Extracts from the Report of the Director of the Department of Extension, Mr. Donald Cameron

Some measure of close relationship of the University to the community it serves can be gained from the fact that staff members gave an estimated 984 talks to various groups totalling 67,000 during the year as well as 122 radio talks from local stations. Apart from regular research and course

duties, the time given to extension bulletins and publications of various kinds, correspondence and the preparation of radio talks and lectures would total 2,000 hours.

One hundred and forty-one short courses, classes and conferences, a substantial increase over the number offered last year, were held throughout the Province. The attendance at these totalled 6,494 in all. On the average, each of these involves about forty hours of class time although they range up to one-hundred and eighty hours. The subject matter of the courses varies widely as a glance at Table II which follows will show. Classes in the arts, leadership skills, philosophy, religion, languages, law, mathematics, history, geology, various aspects of business management, prospecting, technical problems in the oil industry, cooperation and insurance were among those offered.

Courses in the University's Evening Division program of credit and non-credit classes were offered in Edmonton, Calgary, Lethbridge and Medicine Hat. Twelve hundred students were enrolled in seventeen credit and twenty-six non-credit classes at these points.

Training for leadership is a growing and important part of the University's extension program. In cooperation with the farm organizations, community groups, cooperatives and school associations, the Department has conducted a number of courses for adults and young people at several points in the Province. The results of these training programs are direct and encouraging.

The circulation of books from the Extension Library shows a satisfactory increase over last year. Open shelf circulation for the year ending March 31 was 61,875, while 551 travelling libraries were sent out to 234 community groups. The book stock of the Library now stands at 39,000 exclusive of pamphlets and periodicals. As is pointed out in the more detailed report on the work of the Extension Library which follows, the aim of the library is "to bring the right books and people together", a challenging and difficult task. Mention too should be made of the Library's function of searching out information on a tremendous variety of subjects for individuals in the often isolated communities it serves.

Film Library figures show a total circulation much the same as in the previous year. Twenty-one thousand reels of film were sent out this year to audiences totalling over half a million. Circulation of slides and filmstrips which are used chiefly as classroom aids was down somewhat over the previous year. Additions to the film stock and film subjects made available through the courtesy of the National Film Board has brought the number of subjects available from the shelves of the Library to 2,900.

The Petroleum Industry Training Service which works closely with government and the oil industry, has been responsible for training men in the technical phases of the industry and for carrying out safety programs for some of the smaller drilling companies. Fourteen training courses attended by 920 oilmen were held during the year.

In all respects, the year's program at the Banff School of Fine Arts and Centre for Continuing Education, was a substantial success. The Summer Session in the Arts had an attendance of 448, of whom 39 were enrolled in University credit courses. Fifty different groups, both national and international, attended short courses, educational meetings and conferences at the School during the year. Of particular interest is the rapid growth and

development of the Advanced Management Training program. Some three hundred executives and trainees attended the three major courses in this program.

Supplementing the training offered at the Summer Session in the Arts, the University's Extension Specialists in Art, Music and Drama accomplished a substantial training program in the smaller communities of the Province. The thirty-five courses offered under their direction were attended by 950 students.

Table IV—Statistical Information, Division of Visual Instruction

Number of moving picture films in library:

Silent, 8 mm. and 16 mm.	492
Canadian Film Institute	17
National Film Board	803
Sponsored Films	142
Sound Films, general	1,439
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Total Films in Library	2,893

Number of new films added to the library during the year (included in the above)	115
Number of filmstrips in library	2,094
Number of sets of 2x2 slides in library	207
Number of sets of old standard slides in library	425

CIRCULATION FIGURES

	1954-55	1953-54 Comparison	
Number of 2x2 and standard slides sent out	223	253	—30
Number of times slides used	179	188	—9
Total audience viewing slides	6,729	6,850	—121
Individual Filmstrips sent out	4,046	4,255	—209
Total Audience viewing filmstrips	102,387	98,160	+4227
Number of reels of silent film set out.....	1,141	1,009	+132
Number of reels sound films sent out	20,049	20,205	—156
Total sets of moving picture films sent out	5,086	5,012	+74
Total number of reels of moving pictures sent out	21,190	21,214	—24
Total number of showing of films, sound and silent	7,362	6,618	+744
Total audiences viewing films	523,930	475,193	+48737
Number of times projection service supplied	300	372	—72
Number of screenings for groups in screening room	74	41	+33
Total number of screenings	374	413	—39

GENERAL STATISTICAL SURVEY

Lectures

University teaching staff	640		
Department of Extension staff	344		
	<hr/>	984	
Aggregate attendance			66,565
No. of radio talks:			
Extension staff	26		
Regular teaching staff	96	122	
Conferences and short Courses, Table II			6,494
Studio Theatre attendance			4,840
Feeders' Day attendance	600		
Youngstown Field Day	100		
Visitors' Day	125		825

Visual Instruction

Number of 2x2 and standard slides sent out	223		
Number of times slides used	179		
Total audience viewing slides			6,729
Individual filmstrips sent out	4,046		
Total audience viewing filmstrips			102,387
Number of reels of silent films sent out	1,141,		
Number of reels of sound films sent out	20,049		
Total sets of moving picture films sent out	5,086		
Total number of reels of moving pictures sent out	21,190		
Total number of showings of films, sound & silent	7,362		
Total audience viewing films			523,930
Number of times projection service supplied	300		
Number of screenings for groups in screening room	74		
Total number of screenings	374		

Library and Debating Service

Number of travelling libraries in use	551		
Number of times sent out—			
Regular libraries	112		
Special libraries	439		
Recorded circulation			30,418

Open-Shelf Circulation

Books:			
Banff School	1,494		
Adults	70,655		
Juvenile	52,693		
Plays	1,188		
Periodicals and pamphlets	3,049		
	<hr/>		129,079
Number of package libraries for debaters sent out			20

Study Group Materials

Number of Citizens' Forum bulletins sent out	1,120
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New Canadian Plays

Number of copies of New Canadian Plays sold	400
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Publications

Press Bulletin, Sessional Notes	10,000	
Press Bulletin, Feeders' Day Program	5,000	
	<hr/>	15,000
Agricultural Bulletins sent out during year	44,766	
Mimeos, circulars and other bulletins sent out	673	
	<hr/>	45,439
Total number of bulletins distributed since inception of service	631,476	
The New Trail, number sent out		11,750

RECAPITULATION

Total aggregate attendance at lectures, conferences, schools and short courses; film-strips programs, slides, moving pictures, Studio Theatre, field days	711,770
Total circulation of travelling library books, Open Shelf, package libraries for debaters, Citizens' Forum bulletins, New Canadian Plays	161,037
Total circulation of press bulletins, agricultural publica- tions, The New Trail	72,189

Conclusion

There has never been a time when education, particularly continuing education has been presented with greater challenge or more problems. In the field of continuing education, the University has a vital role to fill. Essentially, the work of adult education must coordinate the efforts of the individual, the community of which he is a member, business, government and other agencies. University extension may in fact, be considered as the catalyst in the community process of growth and development. And while the University thus serves the community it is also served by the community from which in the last analysis it draws its strength.

It is with some satisfaction that this report can record the close association and vigorous participation of the University in the life of the province.

Table II—Short Courses, Classes and Conferences Arranged and Organized by the Department of Extension

Short Course, Class or Conference	Sponsor	Where Held	Period	Hours	Attendance
1. Introduction to New Testament Literature	Department of Extension	Edmonton	Oct. 12-Dec. 20	15	18
2. Effective Reading	Department of Extension	Edmonton	Oct. 12-Dec. 14	15	48
3. Law for the Layman	Department of Extension	Edmonton	Oct. 12-Dec. 14	15	41
4. Ukrainian Literature of the Twentieth Century	Department of Extension	Edmonton	Oct. 13-Dec. 15	15	20
5. Public Speaking	Department of Extension	Edmonton	Oct. 13-Dec. 15	15	39
6. An Approach to Music I	Department of Extension	Edmonton	Oct. 13-Dec. 15	15	32
7. English Composition	Department of Extension	Edmonton	Oct. 14-Dec. 16	15	45
8. Problem Areas of the World	Department of Extension	Edmonton	Oct. 14-Dec. 16	15	25
9. Conversational French I	Department of Extension	Edmonton	Oct. 15-Dec. 17	15	34
10. Conversational French II	Department of Extension	Edmonton	Oct. 15-Dec. 17	15	28
11. Petroleum Law	Department of Extension	Edmonton	Jan. 29-Apr. 2	15	42
12. Moral Philosophy	Department of Extension	Edmonton	Oct. 15-Dec. 17	15	46
13. Home Gardening	Department of Extension	Edmonton	Jan. 24-Mar. 28	15	48
14. Modern English Novel	Department of Extension	Edmonton	Jan. 24-Mar. 28	15	23
15. The Hebraic Heritage	Department of Extension	Edmonton	Jan. 25-Mar. 29	15	59
16. Comparative Religion	Department of Extension	Edmonton	Jan. 24-Mar. 28	15	37
17. Effective Chairmanship	Department of Extension	Edmonton	Jan. 26-Mar. 30	15	25
18. An Approach to Music II	Department of Extension	Edmonton	Jan. 26-Mar. 30	15	16
19. An Introduction to Petroleum Geology	Department of Extension	Edmonton	Jan. 26-Mar. 30	15	46
20. English Composition II	Department of Extension	Edmonton	Jan. 27-Mar. 31	15	27
21. Legal-Administrative Problems in the Oil Industry	Department of Extension	Edmonton	Jan. 28-Apr. 1	15	26
22. Financial Statement Analysis	Department of Extension	Calgary	Feb. 2-Apr. 6	15	45
23. Landscaping the Small Lot	Department of Extension	Calgary	Feb. 2-Apr. 6	15	75
24. Conversational French	Department of Extension	Calgary	Feb. 3-Apr. 7	15	38
25. Landscaping the Small Lot	Department of Extension and Medicine Hat Horticultural Society	Medicine Hat	Feb. 4-Apr. 8	15	23
26. Public Speaking and Chairmanship	Department of Extension	Medicine Hat	Feb. 5-Apr. 9	15	27
27. English 2	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	28
28. Mathematics 43	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	31
29. Economics 1	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	15
30. Philosophy 51	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	44
31. History 65	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	38
32. Education 338	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	17
33. Education 478	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	6
34. Education 564	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	10
35. Chemistry 40	Department of Extension	Edmonton	Oct. 4-Apr. 16	80	10
36. Education 308	Department of Extension	Calgary	Oct. 4-Apr. 16	80	32
37. English 2	Department of Extension	Calgary	Oct. 4-Apr. 16	80	17
38. History 58	Department of Extension	Lethbridge	Oct. 4-Apr. 16	80	21
39. History 58	Department of Extension	Lethbridge	Oct. 4-Apr. 16	80	22
40. Accounting I	Society of Industrial and Cost Accountants of Alberta and University of Alberta	Medicine Hat	Oct. 4-Apr. 16	80	22
41. Accounting I	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 4-Apr. 16	80	37

Table II—continued

Short Course, Class or Conference	Sponsor	Where Held	Period	Hours	Attendance
42. Accounting II	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 4-Apr. 16	40	27
43. Industrial Organization and Management	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 4-Apr. 16	40	18
44. Fundamentals of Cost	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 4-Apr. 16	40	25
45. Business Mathematics	Society of Ind. and Cost Accountants of Alta.	Calgary	Oct. 4-Apr. 16	40	35
46. Accounting I	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 4-Apr. 16	80	34
47. Industrial Organization and Management	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 4-Apr. 16	40	28
48. Business Mathematics	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 4-Apr. 16	40	18
49. Fundamentals of Cost	Society of Ind. and Cost Accountants of Alta.	Edmonton	Oct. 4-Apr. 16	40	19
50. Accounting I	Society of Ind. and Cost Accountants of Alta.	Lethbridge	Oct. 4-Apr. 16	80	13
51. Real Estate Principles and Practice—First Year	Department of Extension and Alberta Real Estate Association	Edmonton	Dec. 1-Mar. 9	24	15
52. Real Estate Principles and Practice—First Year	Department of Extension and Alberta Real Estate Association	Calgary	Nov. 30-Mar. 8	24	32
53. Real Estate Principles and Practice—Second Year	Department of Extension and Alberta Real Estate Association	Edmonton	Dec. 1-Feb. 23	20	30
54. Real Estate Principles and Practice—Second Year	Department of Extension and Alberta Real Estate Association	Calgary	Nov. 30-Mar. 1	20	72
55. The Appraisal of Real Estate	Department of Extension and Appraisal Institute of Canada, Edmonton Chapter	Edmonton	Nov. 29-Mar. 21	46	60
56. Prospecting	Department of Extension and Alberta and North West Chamber of Mines and C.I.M.M.	Edmonton	Jan. 11-Feb. 24	28	110
57. Master Class in Piano	Department of Extension	Edmonton	Feb. 23-Feb. 25	8	40
58. Personnel Selection and Placement	The Alberta Wheat Pool, Alberta Cooperative Union, Dept. of Agriculture, Alberta Federation of Agriculture, Farmers' Union of Alberta, U.F. Coop., U.G.G.	Calgary	Feb. 10-Mar. 17	12	40
59. Short Course in Leadership Techniques	F.U.A.	Banff	Oct. 31-Nov. 12	83	35
60. Leadership Workshop	C.P.A., C.A.O.D.C.	Crossfield	Apr. 2	7	38
61. Oilwell Safety Clinic	Dept. of Municipal Affairs, Alberta Assn. of M.D. Secretary-Treasurers	Banff	May 6-May 7	16	90
62. Municipal Administration	Alberta School Trustees' Assn., Dept. of Education and Alberta Divisional Secretary-Treasurers' Association	Banff	May 25-May 27	15	75
63. School Administration	Faculty of Agriculture and School of Household Economics	Banff	June 7-June 10	18	70
64. Farm Young People's Week	Community Organizations	Edmonton	June 8-June 16	50	135
65. Community Life Conference	Workmen's Compensation Board	Beaverlodge	July 5-July 8	20	250
66. Pyrotechnics Course	Alcoholism Foundation of Alberta	Edmonton	Aug. 25	18	350
67. Alcohol Studies	Department of Extension	Banff	Aug. 30-Sep. 2	30	140
68. Supervisory and Management Training	School of Nursing	Edmonton	Nov. 7-Nov. 20	15	15
69. Ward Management	Trades and Labor Congress of Canada, Alberta Federation of Labor	Edmonton	Nov. 9-Dec. 14	12	140
70. Seminar in Advanced Labor Education	Department of Extension	Banff	Nov. 14-Nov. 27	60	60
71. Speech Training for Nurses		Edmonton	Oct. 14-Dec. 18	25	26

72. Becoming a Writer	Canadian Authors' Association	Edmonton	Nov. 18-Feb. 11	20	18
73. Writers' Seminar	Canadian Authors' Association	Edmonton	Nov. 18-Feb. 11	20	25
74. Leadership Workshop	F.U.A.	Lethbridge	Dec. 15	6	35
75. Leadership Workshop	F.U.A.	Millet	Jan. 26	6	35
76. Leadership Workshop	F.U.A.	Lacombe	Feb. 5	6	50
77. Leadership Workshop	Department of Agriculture	Vegreville	Mar. 24	6	50
78. Cooperators' Workshop	The Alberta Coop. Union	Rycroft	Mar. 16-Mar. 17	15	20
79. Cooperators' Workshop	The Alberta Coop. Union	McLennan	Mar. 14-Mar. 15	15	30
80. Cooperators' Workshop	The Alberta Coop. Union	Sangudo	Nov. 23-Nov. 24	14	23
81. Cooperators' Workshop	The Alberta Coop. Union	Thorhild	Dec. 2-Dec. 3	14	27
82. Cooperators' Workshop	The Alberta Coop. Union	Westlock	Nov. 23-Nov. 26	14	13
83. Committee Members' Workshop	Department of Agriculture and Local Community Organization	Cochrane	Feb. 10-Feb. 11	11	59
84. Committee Members' Workshop	Local Community Organizations	Airdrie	Dec. 13-Dec. 14	12	60
85. Committee Members' Workshop	Local Community Organizations	High River	Feb. 23-Feb. 24	12	36
86. Choral Leadership	Department of Extension	Alix	Feb. 9-Apr. 16	17	30
87. Drama Workshop	Department of Extension	Edmonton	Sep. 29-Dec. 1	10	15
88. Drama Workshop	Department of Extension	Fairview	Oct. 19-Oct. 20	6	50
89. Drama Workshop	Department of Extension	Coaldale	Nov. 1-Nov. 3	14	22
90. Drama Workshop, Junior Group	Department of Extension	Stirling	Nov. 4-Nov. 6	6	30
91. Drama Workshop, Senior Group	Department of Extension	Stirling	Nov. 4-Nov. 6	9	26
92. Drama Workshop	Department of Extension	Red Deer	Nov. 17-Nov. 19	9	33
93. Drama Workshop	Department of Extension	Cardston	Nov. 22-Nov. 24	20	75
94. Drama Workshop	Department of Extension	Edmonton	Jan. 3-Jan. 17	8	15
95. Drama Workshop	Department of Extension	Brooks	Feb. 20-Feb. 22	18	15
96. Drama Workshop	Department of Extension	Queenstown	Mar. 2-Mar. 3	10	19
97. Drama Workshop	Department of Extension	Cayley	Mar. 4-Mar. 7	6	10
98. Drama Workshop	Department of Extension	Manning	Mar. 20-Mar. 21	10	22
99. Banff School of Fine Arts Summer Session	Banff School of Fine Arts	Banff	July 5-Aug. 14	10	448
100. Summer Short Course in Painting	Banff School of Fine Arts	Banff	June 21-July 3	35	35
101. Autumn Short Course in Painting	Universities of Alberta, British Columbia, Manitoba and Saskatchewan	Banff	Aug. 11-Sept. 11	16	16
102. Banff School of Advanced Management	Society of Industrial and Cost Accountants of Alberta	Banff	Jan. 31-Mar. 12	68	68
103. Short Course in Executive Development	Alberta Institute of Chartered Accountants	Banff	Mar. 21-Apr. 2	27	27
104. English Usage	Alberta Institute of Chartered Accountants	Edmonton	Sep. 18-Nov. 6	16	26
105. English Usage	Department of Extension	Calgary	Sep. 18-Nov. 6	16	17
106. Sculpturing Course	Department of Extension	Edmonton	Oct. 29-Mar. 25	9	9
107. Training Instructors of Supervisors and Foremen in Industry	Department of Extension	Banff	Nov. 8-Nov. 20	36	36
108. Short Course in Life Insurance Marketing	Calgary Life Underwriters' Association	Calgary	Apr. 19-Apr. 23	51	51
109. Field Safety Clinic	P.I.T.S., W.C.B. and C.A.O.D.C.	Swift Current	Oct. 6	6	108
110. Field Safety Clinic	P.I.T.S., W.C.B. and C.A.O.D.C.	Valley View	Jan. 19	6	100
111. Field Safety Clinic	P.I.T.S., W.C.B. and C.A.O.D.C.	Drayton Valley	Feb. 16	6	207
112. Care and Handling of Drill Pipe and Drill Collars	P.I.T.S.	Wetaskiwin	July 14-July 16	12	34
113. Care and Handling of Drill Pipe and Drill Collars	P.I.T.S.	Stettler	July 19-July 20	12	48

Table II—continued

Short Course, Class or Conference	Sponsor	Where Held	Period	Hours	Attendance
114. Care and Handling of Drill Pipe and Drill Collars	P.I.T.S.	Calgary	July 23	6	52
115. Care and Handling of Drill Pipe and Drill Collars	P.I.T.S.	Drayton Valley	July 27-July 28	12	55
116. Care and Handling of Drill Pipe and Drill Collars	P.I.T.S.	Virden, Man.	Nov. 1	6	95
117. Care and Handling of Drill Pipe and Drill Collars	P.I.T.S.	Swift Current	Nov. 3	6	66
118. Oilwell Drilling Safety Clinic	P.I.T.S., W.C.B., C.A.O.D.C., C.P.A.	Banff	May 6-May 7		179
119. The Western Canada Conference on Financial Management and Petroleum Accounting	Petroleum Accountants' Society of Western Canada	Banff	May 12-May 14		75
120. Spring Short Course in Art	Medicine Hat Art Club	Medicine Hat	May 24-May 29	36	25
121. Spring Short Course in Art	Castor Art Club	Castor	Apr. 30-May 1	6	20
122. Spring Short Course in Art	Vulcan Art Club	Vulcan	May 10-May 15	11	20
123. Spring Short Course in Art	Lethbridge Sketch Club	Lethbridge	May 31-June 5	36	25
124. Community Art Class	Athabasca Art Club	Athabasca	Oct. 18-Mar. 7	18	30
125. Community Art Class	Lloydminster Art Club	Lloydminster	Nov. 1-Mar. 15	35	30
126. Community Art Class	Fort Saskatchewan Art Club	Ft. Saskatchewan	Oct. 26-Mar. 21	9	15
127. Community Art Class	Wetaskiwin Art Club	Wetaskiwin	Nov. 16-Apr. 12	25	25
128. Community Art Class	Meeting Creek and Camrose Art Club	Camrose	Oct. 4-Oct. 20	15	15
129. Community Art Class	Bentley Art Club and Lacombe Art Club	Lacombe	Nov. 9-Mar. 22	25	30
130. Community Art Class	Castor Art Club	Castor	Dec. 16-Apr. 13	18	15
131. Community Art Class	Red Deer Art Club	Red Deer	Oct. 13-Mar. 31	28	20
132. Community Art Class	Rocky Mountain House Art Club	Rocky Mt. House	Oct. 28-Mar. 17	15	30
133. Community Art Class	Drumheller Art Club	Drumheller	Oct. 7-Mar. 30	40	30
134. Community Art Class	High River Art Club	High River	Nov. 6-Mar. 26	27	20
135. Community Art Class	Vulcan Art Club	Vulcan	Nov. 3-Mar. 9	25	15
136. Community Art Class	Nanton Art Club	Nanton	Nov. 6-Mar. 26	20	26
137. Community Art Class	Medicine Hat Art Club	Medicine Hat	Oct. 16-Apr. 15	75	50
138. Community Art Class	Lethbridge Sketch Club	Lethbridge	Nov. 4-Apr. 1	40	60
139. Community Art Class	Lethbridge Sketch Club	Lethbridge	Jan. 13-Apr. 1	22	35
140. Community Art Class	Manville Art Club and Innisfree Art Club	Manville	Nov. 1-Mar. 14	20	30
141. Community Art Class, Junior Group	Medicine Hat Art Club	Medicine Hat	Oct. 2-Mar. 12	24	35
					6,569

Report of Dr. R. D. Stuart, Director, Provincial Laboratory of Public Health

During 1954 the Provincial Laboratories carried out 294,214 examinations, the nature of which is shown in the accompanying tables. The work done increased by 16,840 examinations or by 6%. These figures were derived from a method of work presentation developed many years ago and, though readily comparable with earlier figures, no longer represent adequately the demands of new techniques nor give value to the special examinations so often referred to your laboratories. An attempt will be made during the forthcoming year to express the volume of work in more up to date terms and to revise the 1955 annual report in accordance.

Special Trends

The continued inability of the laboratories to satisfy the demand for a virus diagnosis service is a matter for regret. A nucleus of the necessary specially trained staff has been acquired but the special equipment and accommodation essential to this type of work is still lacking.

In the Central Provincial Laboratory. The demand for antibiotic sensitivity tests on organisms isolated in our diagnostic routine continues to grow. Since these organisms have to be tested routinely against at least 5 antibiotics it is little wonder that our total of disc-test examinations has increased by 19,000. The value of such tests has been repeatedly emphasized by medical authorities and has been confirmed in our own area by a special investigation carried out with our cooperation by Dr. J. D. Munroe working as a research student in the University Department of Bacteriology. Dr. Munroe, from a close study of hospital records, was able to determine that treatment along the lines suggested by the laboratory sensitivity tests cut the hospital time of patients by as much as 75%.

The fall of 3,951 in the figures recorded for *Gonococcus* cultures does not indicate any decrease in clinical interest. Indeed about 400 more specimens were received, but cervical and urethral swabs, received from each patient and previously cultured separately, were now cultured together and thus constituted one examination instead of two. This technical simplification was achieved without any depreciation of the clinical value of the results.

A possible trend was the increasing involvement of the laboratory in a hospital problem of considerable magnitude, the increase in infections due to antibiotic resistant staphylococci. Thus, during one period of almost epidemic prevalence of such infections, the laboratory became directly responsible for most of the epidemiological investigation and for the attempted control of bacterial transmission. The extra work in consultation and personal investigation is not revealed anywhere in the tables.

Reporting on pathology Dr. Macgregor comments on the continued increase in the diagnostic histology service which is now one of the largest in Canada. This year's increase of almost 1,000 specimens has more than wiped out the fall in 1952 when the establishment of a pathological service in the Misericordia Hospital relieved for a time the heavy burden on this laboratory. Whether our current trend should be towards further devolution or towards enlargement of local staff is not clear. The matter, however, is not trivial because only medical men with special training and experience can carry out this type of work.

In the Southern Branch Laboratory. In Calgary the transference of the Clinical Pathology section from the Provincial Laboratory to the Baker Memorial Sanatorium in March resulted in a very small decrease in the total number of examinations recorded. As indicated in last year's report this transference was largely a matter of administrative convenience and Dr. Shute's laboratory still provides the services for the sanatorium in serology, miscellaneous bacteriology, histology and supplies culture media for the isolation of the tubercle bacillus.

The trend to an increased demand for the examination of material for cancer cells by the exfoliative technique continues to develop. We were fortunate in being able (with the financial assistance of the Alberta Cancer Society), to let Dr. Shute take a special course in this new technique. During the year examinations of this type increased by 131 or 78%.

New or Supplementary Services

In Edmonton an antibiotic sensitivity service has been developed. Paper discs impregnated with the amounts of individual antibiotics necessary for testing bacterial sensitivity are prepared in the laboratory instead of being bought commercially. In this way a direct saving of at least \$1,000 has been achieved. In addition we are able to supply these discs at cost to the various Edmonton hospital laboratories thus standardising the technique in the local area and also achieving a very considerable saving to the hospitals concerned; 28,500 discs were supplied at a cost of \$570, approximately half commercial cost.

With the cooperation of the Department of Bacteriology a limited service was offered for the determination of the antistreptolysin titre in sera from patients with various diseases of possible rheumatic origin. These tests are often helpful to clinicians in the differential diagnosis of many obscure arthritic and cardiac diseases. Several hundred tests were carried out but the demand is not yet of sufficient magnitude to come directly into Provincial Laboratory routine.

In the Calgary laboratory a culture service is now provided for the investigation of suspected gonorrhoea in women. Although this has been in operation only three months Dr. Shute indicates that considerable clinical appreciation has been expressed because of the much greater significance of the laboratory findings in the diagnosis of atypical or peculiar cases.

Both laboratories were involved in the recent Provincial Poliomyelitis Vaccine Evaluation Study. Essential to this was the processing of blood samples taken from the participating children. Senior professional personnel had to be employed on this because of the extreme care essential to the final examination carried out by the courtesy of the Connaught Virus Laboratories. In all 858 sera were received, handled and forwarded by the Edmonton laboratory including 415 received and processed by Dr. Crichton in Calgary.

Regular Laboratory Services

Many interesting and peculiar cases have been investigated bacteriologically in both laboratories, but I shall comment only on two circumstances of possible epidemiological significance. Diphtheria, which has been very rare in the Province for a number of years, seems to be reappearing. During the year the Edmonton laboratory isolated 17 strains of *C. diphtheriae* from persons in the McLennan area and 13 strains from specimens submitted by

the Sturgeon Health Unit. It is of interest that the first group were all of 'Intermedius' type, the second of Gravis Type 2, indicating separate foci of organismal prevalence. The second epidemiological circumstance is the increase in dysentery infections due to *B. dysenteriae* infection. This was particularly notable during December when an institutional outbreak necessitated the examination of 244 specimens of which 138 were positive to *B. dysenteriae sonnei*. The same investigation revealed that two of these patients were also carrying *Salmonella paratyphosa* B. though this was apparently playing no part in the outbreak.

Sanitary Bacteriology requires special mention because of the continued increase in water examinations. In Edmonton the increase of 544, approximately 9%, expressed the continuation of the trend pointed out last year. In Calgary the increase of 1,053, or almost 59%, was largely due to an attempt to demonstrate to one small town the potential danger of its many contaminated wells and the advantages of a town reservoir and piped domestic supply.

The techniques of water examination have been much discussed lately in both Canada and the U.S. To ensure that we were fully informed on all the latest procedures Miss Helen Carlyle, our senior technologist in the water section, took a special two week course in Sanitary Bacteriology given by the Laboratory of Hygiene in Ottawa. The information she obtained has been of distinct value to our service.

Pathology. The increase in diagnostic histology examinations carried out in Dr. Macgregor's department of the Edmonton Laboratory has already been indicated. In Calgary Dr. Shute reports a similar increase, in his case of 872 specimens or 31%. In both laboratories a definitive diagnosis of cancer was established in roughly 10% of these specimens.

In Edmonton other examinations continued at approximately the same level with the exception of medico-legal autopsies of which 45 were carried out this year. In Calgary the large increase in routine smear diagnosis of cancer has already been mentioned.

Staff

I have to record with regret the resignation of Dr. E. S. Keeping, Mycologist in the Central Laboratory. For many years, though supported for much of that time only by tenuous research grants, Dr. Keeping fostered and developed clinical interest in fungal infections throughout the Province. Finally, within the scope of the Provincial Laboratory, she was able to provide a diagnostic service for which the demand has rapidly increased in the last few years. We are fortunate in having as her successor Mr. W. C. Carmichael, B.Sc., M.Sc., who was a pupil of Dr. Keeping. He has just returned from Harvard after two years of work in mycology for which he received the support of a Provincial Training Grant. Mr. Carmichael will shortly receive the degree of Ph.D. in Mycology from Harvard and is keenly alive to the necessity for further development of the laboratory service in medical mycology in this Province.

WORK PERFORMED IN THE PROVINCIAL LABORATORY, EDMONTON, DURING THE YEAR 1954

	Total 1953	Total 1954	In- crease	De- crease
Sputum Examination	1,547	1,713	166	.....
Diphtheria & Haemolytic Streptococci	3,467	4,438	971	.....
Typhoid Fever (Agglutination Test)	2,262	2,094	.....	168
Milk	1,615	1,388	.....	227
Water	6,284	6,828	544	.....
Guinea pig inoculations	2,325	2,733	408	.....
Miscellaneous Bacteriology	6,741	8,043	1,302	.....
Blood Cultures	900	1,004	104	.....
Enterobacteria & Intestinal Parasites	3,381	3,730	349	.....
Urinalysis	11	10	.....	1
Medico-legal (Blood, seminal, etc.)	8	11	3	.....
Cerebro-spinal fluids for Wasserman Test	2,144	1,810	.....	334
Bloods for the Quantitative Kahn Test	898	878	.....	20
Bloods for the Wasserman Test	5,249	5,009	.....	240
Bloods for the Standard Kahn Test	5,154	4,866	.....	288
Bloods for the Presumptive Kahn Test	94,551	93,958	.....	593
Smears for Gonococcus	10,200	10,724	524	.....
Cultures for Gonococcus	8,704	4,753	.....	3,951
Pathological Histological Material	10,989	11,960	971	.....
Blood Smear Examinations	230	253	23	.....
Post Mortem Examinations (Edmonton)	230	253	20	.....
Post Mortem Reports (Outside Points)	189	158	.....	31
Ascheim Zondek Tests	107	13	.....	94
Frog Tests	408	554	146	.....
Fluids for Cancer Cells	268	304	36	.....
Cancer Cytology	69	49	.....	20
Bone Marrows	23	15	.....	8
Cerebro-spinal fluids examinations (Colloidal Gold, Pandy)	2,594	2,034	.....	560
Bacteriological examinations (P.M.)	107	145	38	.....
B. abortus examinations (Agglutination Test	2,335	1,923	.....	412
P. tularensis (Agglutination Test)	2,387	2,057	.....	330
Antibiotic sensitivities etc. (discs)	28,650	47,650	19,000	.....
Mycological Examinations	736	775	39	.....
Weil Felix	12	10	.....	2
Paul Bunnell Tests	928	889	.....	39
T.B. Smears and Cultures	3,215	3,322	107	.....
Autogenous Vaccine	24	40	16	.....
Leptospiral Agglutinations—Cattle Bloods..	375	759	384	.....
Human Bloods		255	255	.....
Total	209,426	227,514	25,406	7,318

Report of Dr. D. Shute, Director of the Provincial Laboratory of Public Health, Southern Branch

Introductory

The year 1954 shows a total decrease in the number of investigations carried out of 3,998. This is entirely accounted by the removal of the small clinical Pathology department from the Provincial Laboratory to the Baker Memorial Sanatorium in mid March 1954.

All the haematology, biochemistry and direct smear and cultural examinations of material for the tubercle bacillus, required by the Sanatorium are now done by Sanatorium technicians in the Sanatorium Laboratory.

The Provincial Laboratory still provides the services required in serology, miscellaneous bacteriology, histology and supplies culture media for the isolation of the tubercle bacillus.

This change has permitted the opening of a sub-department in bacteriology for the investigation of the gonococcus in which one senior technician is fully occupied.

Sanitary Bacteriology

There has been an increase of about 59% in the number of water samples examined largely due to an attempt to demonstrate to one small town the potential danger of its many contaminated wells and the advantages of a town reservoir and piped domestic supply.

Diagnostic Bacteriology

No notable change is shown except a great increase in the number and variety of antibiotic sensitivity tests performed on various bacteria isolated.

There was no major outbreak of contagious or infectious disease requiring bacteriological investigation.

Serology of Syphilis

This branch continues to be a major occupation and has shown a slight increase over 1953.

Pathological Histology

The number of histological specimens has increased by 872 (31%) and from these 5,016 tissue blocks were processed and sectioned.

In all 327 definitive diagnoses of cancer were made of which 322 were ante mortem and 5 post mortem.

The examination of material for cancer cells by the exfoliative technique has increased by 131 (78%).

Unfortunately we have not yet been able to assess the accuracy of the eleven tentative diagnoses of cancer by cellular cytology.

Staff

The total strength of the staff has remained stable although there have been changes due to resignations. The ten mile journey to and from the city continues to be a deterrent in the recruitment of new staff.

In accordance with the wishes of the Board of Governors it has been found possible to run a modified five day week schedule of working hours from October to May. However, during the Summer leave period (June to September) it was necessary to maintain the previous five and a half day working week.

WORK PERFORMED IN THE PROVINCIAL LABORATORY,
SOUTHERN BRANCH, CALGARY, DURING THE YEAR 1954

Sputum Examinations (Smears)	1,066
Sputum Examinations (Cultures)	132
Diphtheria and Haemolytic Streptococci	684
Diphtheria Virulence Tests	17
Typhoid Fever (Agglutination Test)	1,307
Milk	977
Water	2,869
Guinea Pig Inoculations	1,054
Miscellaneous Bacteriology	1,309
Blood Cultures	120
Enterobacteria & Intestinal Parasites	340
Urinalyses	417
Medico-Legal	
Blood Counts	258
Biochemistry Investigations	24
Cerebro-spinal fluids for Wassermann Test	1,051
Bloods for the Quantitative Kahn Test	331
Bloods for the Wassermann Test	2,958
Bloods for the Standard Kahn Test	2,763
Bloods for the Presumptive Kahn Test	28,924
Smears for Gonococcus	2,952
Cultures for Gonococcus	390
Van den Bergh Determinations	1
Pathological Histological Materials	3,581
Blood Smear Examinations	130
Post Mortem Examinations	33
Bone Marrows	
Fluids for Cancer Cells	296
Cerebro-spinal fluid examinations (Colloidal Gold, Pandy)	1,073
Bacteriological Examinations (P.M.)	
B. abortus examinations (Agglutination Test)	1,307
P. tubarensis examinations (Agglutination Test)	1,307
B. Militenses examinations (Agglutination Test)	
Cattle Blood—Bang's Disease	
Miscellaneous T.B. Smears	76
Diphtheria	84
Fungi	23
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	57,854
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Report of C. Emerson Noble, Director of the Industrial Laboratories

I would give you the following report for the Department of Provincial Analyst and Industrial Laboratories for the nine months July 1, 1954, to March 31, 1955.

Examinations and Analyses

Acid	2	Liquid	10
Agate	3	Lime	8
Asphalt	4	Limestone	20
Barytes	12	Marble	2
Blood	202	Marl	27
Bones	3	Meat	4
Brine	7	Meat Meal	3
Brass	2	Medicine	4
Bottles	13	Metal	5
Candy	2	Mica	3
Cement	17	Milk	5
Chlorine Compounds	3	Minerals	10
Clay	19	Miscellaneous	81
Cigarettes	3	Mortar	1
Clothes	19	Mud	10
Coal	13	Narcotics (O & ND Exhibits)	34
Concrete	34	Oats	1
2-4-D	6	Ochre	2
Deposits	24	Oil (Crude)	1
Egg Powder	4	(Lubricating)	2
Fat	2	(Fuel)	2
Feed (Animal)	56	(Edible)	1
(Poultry)	3	Ore	162
(Concentrates)	7	Paint	5
Fish	2	Pills	14
Flax	2	Pitch	2
Flour	2	Plastic	1
Food (Human)	22	Plaster	8
Fossil	3	Poison Exhibits (Misc.)	9
Fruit	3	Poison Examinations	
Fruit Juice	2	(Human)	336
Fungii	2	Police Exhibits (Misc.)	3
Galena	2	Powder	5
Gasoline	10	Pyrites	4
Glaubers Salts	10	Pentachloro Phenol	8
Glass	4	Quartz	2
Gravel	5	Rock	93
Gypsum	2	Rope Wire	1
Hay	2	Rubber	3
Industrial Chemicals	31	Rugs	2
Insects	5	Rug Sweepings	1
Iron	5	Sand	83
Liquor (Detailed for ALCB)	52	Sandstone	1
(Malt for ALCB)	719	Salt	5
(Miscellaneous)	2	Scale	2
(Police Samples)	62	Schist	1

Sediment	3	Water (Sanitary)	1,941
Seed	1	Wax	13
Shale	16	Wire	3
Silica	1	Wheat	53
Silage	1	Wood	22
Sludge	2	Veterinary Specimens	391
Soap	9	<i>Engineering Supplies</i>	
Soft Drinks	2	Concrete Cylinders	2,279
Soils	90	Electrician's Gloves	165
Solder	2	Lightning Arresters	68
Sterilizer	6	Lightning Rod Cable	4
Solutions	1	Bus Bar Insulation	3
Steel	10	Fuse	3
Steel Pipe	26	Electric Cable	4
Sugar	3	Rubber Strap	1
Tankage	29	Transformer Oil	6
Tile	18	Recording Dimand Meter	1
Tobacco	1	Induction Motors	5
Urine	8		

The engineering material was handled in conjunction with the departments of Civil and Electrical Engineering. Various analyses were made as required for Provincial Government departments such as Attorney General, Agriculture, Alberta Liquor Control Board, Mines and Forests, Lands and Minerals, Health, Provincial Secretary, Highways, and Public Works and also for the Dominion Government.

The Provincial Analyst is required to make control analyses for the Alberta Liquor Control Board re the Alberta breweries and distillers. Chemical examinations were made for the Provincial Laboratory, as required; also for the Provincial Coroner and the Department of Pathology, and the Hospitals.

With analyses made for the department of the Attorney General and the Provincial Coroner, necessary court evidence was given under Dominion and Provincial Acts and Regulations, and the Criminal Code.

Necessary analyses were made for the Police departments in Alberta and court evidence given when required.

The number of analyses made for the department of Health, and the Police continue to increase at the most rapid rate, while more industrial analyses are done privately. Detailed analyses were made on 1,941 sanitary waters,, 371 veterinary and 336 human specimens.

Many of the commercial analyses require considerable research, and also research was necessary on many methods of analysis, two of the latter being reprinted by German firms.

Date Due _____

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